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# ARCHAEOLOGICAL DATA RECOVERY AT CATOCTIN FURNACE CEMETERY

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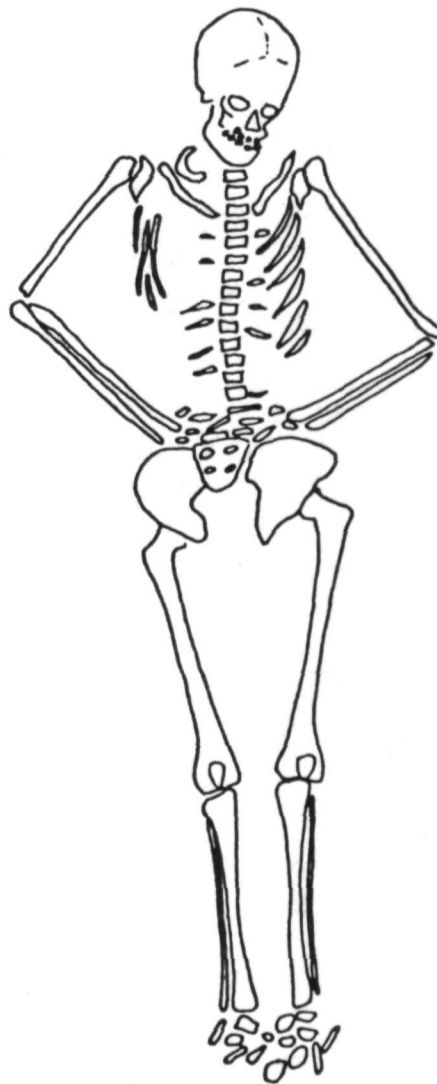
### SUBMITTED TO:

Orr and Son, Consulting Archaeologists  
For - Maryland Department of Transportation  
Arlington, Virginia

**JUN 1981**

Mid-Atlantic Archaeological Research, Inc.

Newark, Delaware



JANUARY 1981

Western Maryland Regional  
Preservation Center  
Department of History  
Frostburg State College  
Frostburg, Maryland 21532

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ARCHAEOLOGICAL DATA RECOVERY

AT

CATOCTIN FURNACE CEMETERY

FREDERICK COUNTY, MARYLAND

by

Sharon Ann Burnston  
Field Investigator

Ronald A. Thomas  
Principal Investigator

SUBMITTED TO:

Orr and Son, Consulting  
Archaeologists

For - Maryland Department of  
Transportation

PREPARED BY:

Mid-Atlantic Archaeological  
Research, Inc.

Newark, Delaware

January 1981

REPORT DOCUMENTATION PAGE		1. REPORT NO.	2.	3. Recipient's Accession No.
4. Title and Subtitle				5. Report Date
Archaeological Data Recovery at Catoctin Furnace Cemetery - Frederick County, Maryland				January 1981
6.				
7. Author(s)				8. Performing Organization Rept. No.
Sharon Ann Burnston				M-15
9. Performing Organization Name and Address				10. Project/Task/Work Unit No.
Mid-Atlantic Archaeological Research, Inc. P.O. Box 676 Newark, Delaware 19711				
11. Contract(C) or Grant(G) No.				
(C)				
(G)				
12. Sponsoring Organization Name and Address				13. Type of Report & Period Covered
Orr and Son, Consulting Archaeologists Arlington, Virginia				Archaeological
For Maryland Department of Transportation				14.
15. Supplementary Notes				
16. Abstract (Limit: 200 words)				
<p>Excavations at the Catoctin Furnace State Historic District in Frederick County, Maryland, conducted by Mid-Atlantic Archaeological Research (MAAR), of Newark, Delaware, included removal of a portion of an unmarked cemetery that fell within the ROW of the proposed dualization of U.S. Route 15. A total of 35 graves was excavated, an estimated one-third of the total graves within the cemetery. Historic documentation research, oral history and intensive artifact analyses provided an informative basis for field investigations. Individuals interred in this cemetery were apparently black slaves connected with the operations of the Catoc-tin Iron Furnace complex during the late eighteenth and early nineteenth centuries.</p>				
17. Document Analysis				
a. Descriptors				
historic cemetery                      Afro-American religious practices				
iron furnace industrial complex				
b. Identifiers/Open-Ended Terms				
c. COSATI Field/Group				
18. Availability Statement		19. Security Class (This Report)		21. No. of Pages
				221
		20. Security Class (This Page)		22. Price

## ABSTRACT

Excavations at the Catoctin Furnace State Historic District in Frederick County, Maryland, conducted by Mid-Atlantic Archaeological Research (MAAR), of Newark, Delaware, included removal of a portion of an unmarked cemetery that fell within the ROW of the proposed dualization of U.S. Route 15. A total of 35 graves was excavated, an estimated one-third of the total graves within the cemetery. Historic documentation research, oral history and intensive artifact analyses provided an informative basis for field investigations. Individuals interred in this cemetery were apparently black slaves connected with the operations of the Catoc-tin Iron Furnace complex during the late eighteenth and early nineteenth centuries.



## ACKNOWLEDGMENTS

Thanks are due to:

Mr. William Renner, former owner of the land on which the site was located, who served as a gold mine of local oral history.

Mary Rae Cantwell, Clem and Harriet Gardner, Marie Burns, and the other members of the Catoctin Furnace Historical Society, who were gracious hosts to us and a source of valuable background information.

Ron, Rita, and Dr. Kenneth Orr, whose assistance and encouragement made the field work a pleasure.

Dr. Marguerite Smith and her archaeology students from Frederick Community College: Franklin Newton, Janet Grahams, Jessica Smith, Bill Cramer and Bonnie Snider, who lent their time as volunteer excavators.

Members of the Archaeological Society of Maryland: Elaine Huey, William and Muriel Lynch, Ward Clark, and Heather Chepko, who also assisted us as volunteer excavators.

Dr. John Fauth, Geological Consultant, who supplied field identifications of the gravemarking stones.

Edward F. Heite, Historical Consultant, whose insights contributed to the interpretation of our finds.

The analysts of the various classes of specialized material: Diane Gallagher, University of Delaware, documentary survey, Dr. J. Lawrence Angel, Smithsonian Institution, Washington, D.C., osteological analysis, Edward Flannagan, Kenneth Basalik, and John McCarthy, Mid-Atlantic Archaeological Research, Newark, Delaware, coffin nail typological and chronological classification. Also R. Bruce Hoadley, Wood Science and Technology, University of Massachusetts, coffin wood sample identification, Stephen M. Epstein and Vincent C. Pigott, MASCA, University of Pennsylvania, coffin nail metallographic analysis, Pam Jean Crabtree, MASCA, University of Pennsylvania, seed and soil sample analyses, and Elaine Huey and Ellyn Cottingham, Gillette Laboratories, Rockville, Maryland, who contributed their time for the textile fiber sample analyses.

The office and laboratory staff of Mid-Atlantic Archaeological Research, Newark, Delaware.

Wayne Clark, Maryland State Historic Preservation Office, who reviewed and commented on earlier drafts of this report.

Graphics were done by Ms. Leslie A. Foster and Janet Worne

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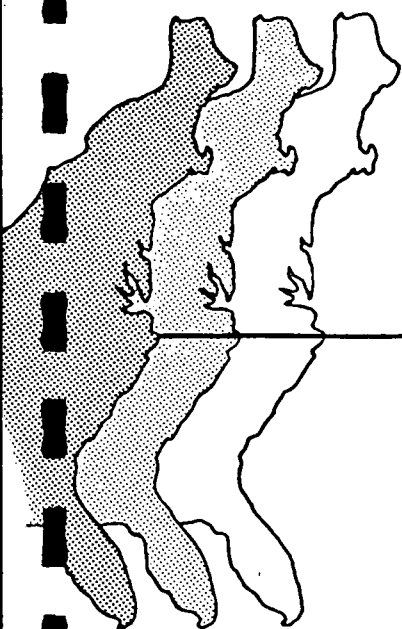
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## introduction

## INTRODUCTION

### Nature of the Project

Official recognition that the proposed ROW for dualization of U.S. Route 15 south of Thurmont in Frederick County, Maryland, would impinge on an unmarked cemetery came during a survey of the affected area conducted by Orr and Son, Consulting Archaeologists, in 1977. Local oral historian Mr. William Renner, who had formerly owned the land on which this cemetery was sited, could recount local lore regarding the cemetery: that it contained graves of blacks and Indians, that it contained graves of plague victims, that it was used at least once in recent memory, in the late nineteenth century, when a smallpox victim was interred there in an iron coffin. He also relayed his personal experiences: some forty years ago, he was chasing a polecat that had stolen one of his chickens. While digging into the animal's burrow with a shovel, at a depth of about 3.5 ft, he uncovered human leg bones, which he threw back in the hole cross-wise and then reburied.

Surface examination of the site revealed fieldstone gravemarkers laid out in rows. These markers were mostly of unretouched local stone, about 2 ft long by .75 ft in diameter, erected to stand on their long axis. Less than one ft of each stone showed above the surface. Some stones had a small ledge or flat space chipped off the upper end. However, no incised, painted or other inscriptions were visible.

Orr and Son conducted five test excavations on the site, which yielded two depressions of unknown origin as well as the graves of at least two human infants (Orr 1977:28-30). It was also observed that the cemetery lay directly between a quarry pit to the south and a washer-pond to the north, and that at least part of the site seemed to contain an over-burden or "mantle" of limestone rock fragments, presumably from the quarry, embedded in the topsoil (Orr 1977:29 and 32).

### Personnel

Excavations were conducted by Mid-Atlantic Archaeological Research, Inc., (MAAR), Newark, Delaware. Principal Investigator was Ronald A. Thomas. Field supervisor was Sharon Ann Burnston. The field crew included Spencer O. Geasey, James Briscoe, Kenneth Basalik, Leslie Schnall, Edward Flannagen, Jack Cresson, Ronald Tirpak, David Bachman, William Sandy, Richard Green, Camille Juliana, Debbie Downs, Philip Bernard, and James Ackerman.

Artifact processing was conducted at a field laboratory maintained by Orr and Son, Consulting Archaeologists, in Thurmont, and at the MAAR offices in Newark, Delaware. Representative samples of certain classes of artifacts were sent to a variety of institutions for specialized

analyses. The osteological material is at present being studied by the staff of Dr. J. Lawrence Angel, Physical Anthropologist, Smithsonian Institution, Washington, D.C.

### Project Location

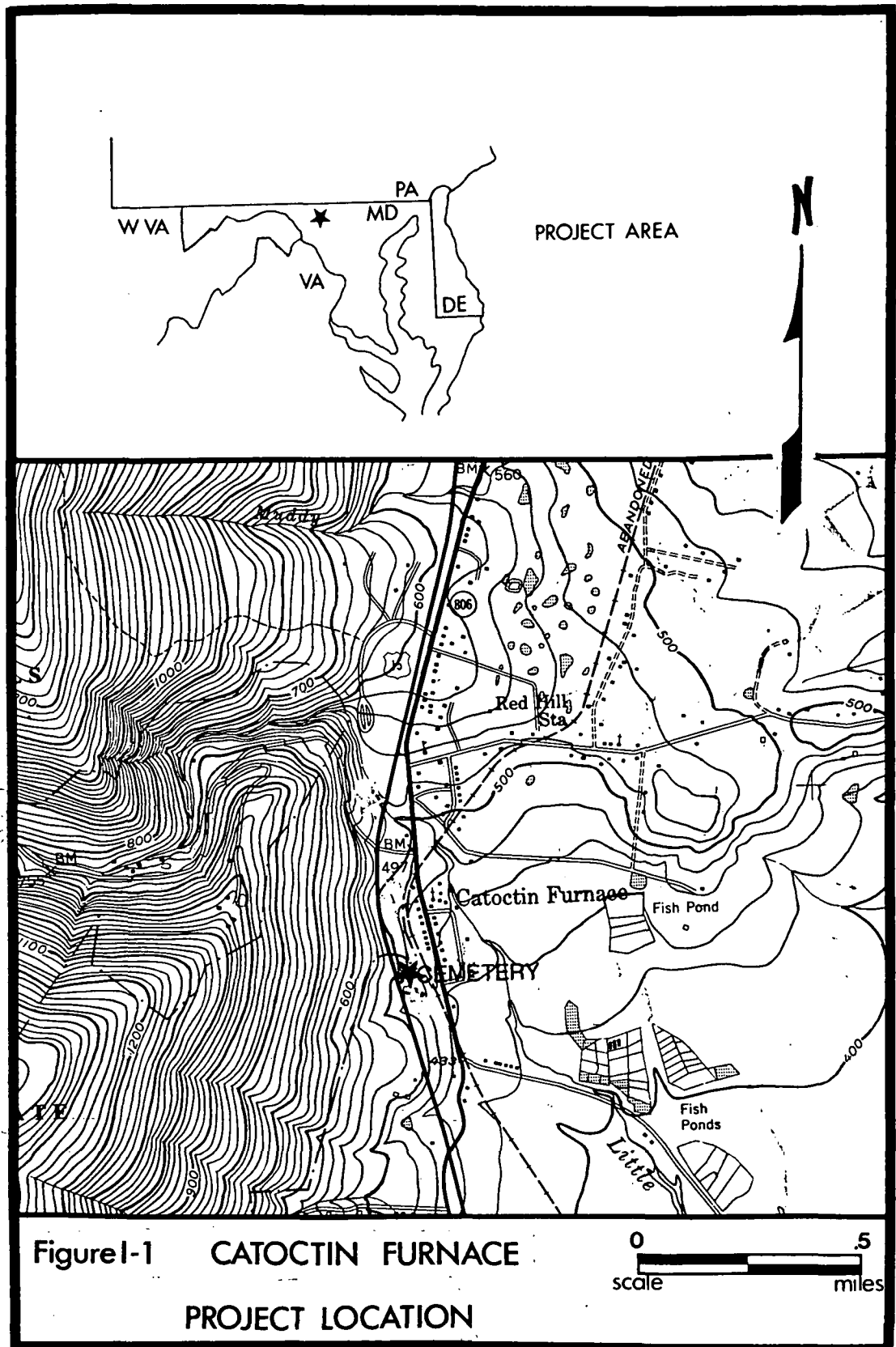
The unmarked, early historic cemetery in the Catoctin Furnace Historic District, Frederick County, Maryland (18FR323) was excavated between July and October, 1979, and again in May, 1980, in order to comply with state law requiring removal of all human remains affected by proposed development. Excavations were confined to the western one-third of the cemetery, that part which lay within the ROW of the projected dualization of U.S. Route 15. The site is located on the east side of Route 15, between Thurmont and Frederick, about one-quarter mile south of Catoctin Hollow Road (Figure I-1).

### Cultural History

The documentary survey was conducted during the interval between the 1979 and 1980 field seasons, so that at the time of its commencement, it had already been determined that the site dated to the late eighteenth and early nineteenth centuries, and that the occupants interred there were blacks of a low socio-economic status.

This information enabled the researcher to focus attention on the status of blacks in the area in the period and specifically to look for records regarding ownership or use of slaves in connection with the Catoctin Iron Works. A primary objective was to search for records which directly referred to this particular cemetery. However, surveys of the available documents in Catoctin Furnace, Thurmont, Frederick and Annapolis failed to produce any such reference to this cemetery or its use (see Appendix 1). What the documentary survey succeeded in establishing are the following :

The owners and operators of the Catoctin Iron Works in the period 1790-1840, who owned the piece of property on which this cemetery was located, all owned slaves. Many of these slaves appear to have been employed elsewhere than at their owners' places of residence, and at a variety of occupations. At other contemporary iron works in the region, the use of slave labor was common practice (cf. Lewis 1976). The demographic distribution of the slaves listed in the 1811 will of one of the owners of the Catoctin Works, Baker Johnson, suggests that Johnson's slaves were a community of family groups and that he was attempting to preserve the nuclear family units in his division of slaves among his heirs. Thus, on the basis of accumulated tangential evidence, it seems permissible to conclude that the black people buried at this site were members of a community of families of black slaves who probably worked in some capacity connected with the operations of the Catoctin Iron Works.





The evidence is less conclusive for the role of the cemetery in the slaves' social network. There is some indication that local black slaves had no church of their own near which a cemetery might have been located, since services were held for them at the local chapel (see Appendix 1). This cemetery, then, would presumably have been affiliated not with a religious community but with a residential one. However, the location of the nearest slave living quarters is not known. It is also possible that a cemetery might have been a plot set aside by a property-holder for burial of his own slaves. We might conclude then, that this cemetery and its occupants belonged to one or more of the several owners of the Catoctin Iron Furnace complex in the period ±1790-1840.

data base

## DATA BASE

### Acquisition Procedure

#### Field Season 1979

Mid-Atlantic Archaeological Research, Inc., began full-scale field excavations at this site in July 1979. The ground cover consisted of mature black walnut trees with an undergrowth of dense vines and brambles. The initial stage of the field work consisted of clearing an area of the undergrowth to allow all visible gravestone markers to be located, and to permit the perimeters of the cemetery to be identified.

A datum point and zero-line were established along the eastern edge of the existing northbound lane of Route 15 (see Figure II-1) and a 10 ft grid system was laid down in accordance with guidelines suggested by the State Archaeologist. Site "North" was defined as parallel to the axis of the highway along that stretch of road. Although the cemetery clearly extended at least 250 ft east of the datum line (E250); the new ROW for the proposed highway improvements was marked at  $\pm$ E165. Since the terms of the archaeological contract specifically involved the excavation of remains only within the ROW, the grid system was laid down only as far as E170.

After establishment of the grid, surface probing was undertaken to locate potential gravemarking stones. A total of 126 such stones was located and mapped (see Figure II-2a), of which 106 were local quartzite, seven were limestone, and the remainder milky quartz or other stone. It was later found that not all of the stones visible from the surface were gravemarkers (or at least, were not in situ), and that not all gravemarkers were visible from the surface. Reference to which stones marked which graves can be found on the individual feature data sheets.

Excavation was begun with a test trench to establish the nature of the stratigraphy and to explore an area of visible disturbance ( $\pm$ N40-50/E150-155, Fig. II-2b). The soils consisted of a loose reddish-brown "chestnut soil" which shaded into a hardpan yellow subsoil at  $\pm$ 3.5 ft below surface. The disturbed area was simply that: an area of disturbance, of no definable origin or function. It is believed that this was the location of Dr. Orr's test pit no. 3 (Orr 1977:29).

Excavations in the 1979 season included extensive manual shovel trenching to locate burials and to define the perimeters of the site (Fig. II-2b). It was established that the graves were in north-south rows, each grave oriented more or less east to west, with crania to the west. The spacing of the rows was roughly one row every 10 ft, and the spacing of the graves within the rows was approximately one grave every four ft. (see Figure II-3). However, there were significant exceptions to this pattern, as well as major gaps, wherein graves were predicted but not found. Some graves seemed to have been buried in clusters or groups.

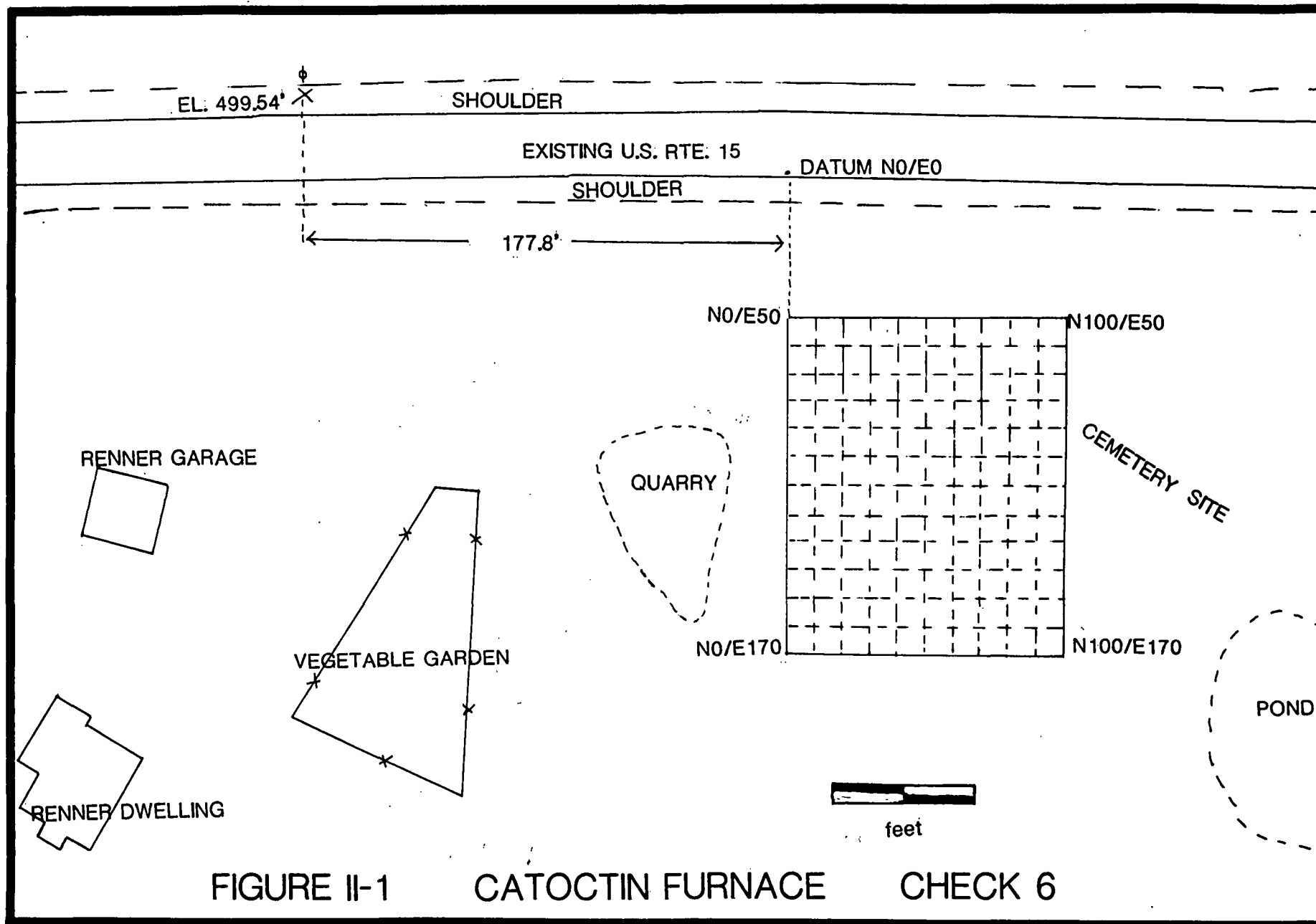
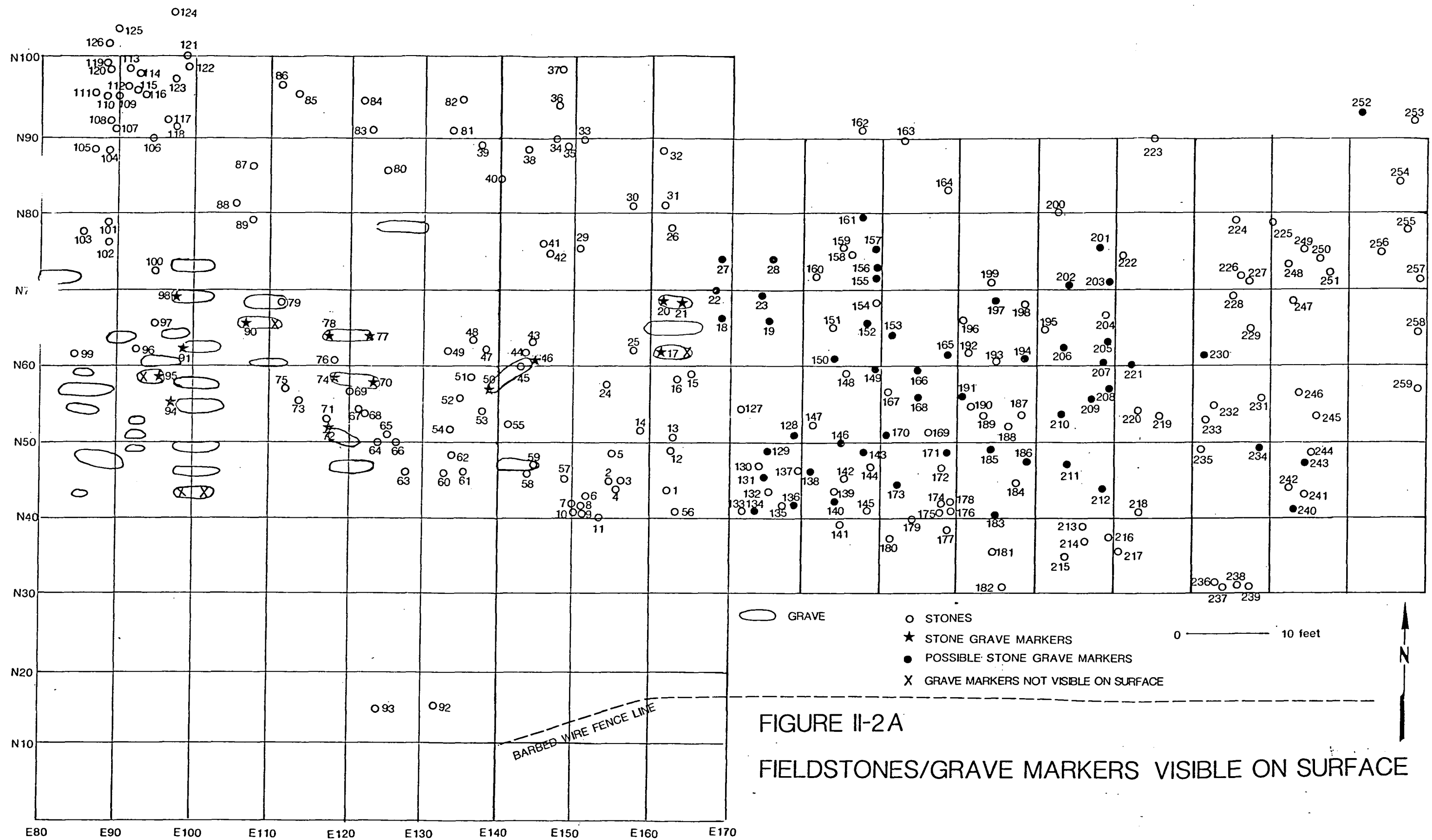


FIGURE II-1

CATOCTIN FURNACE

CHECK 6



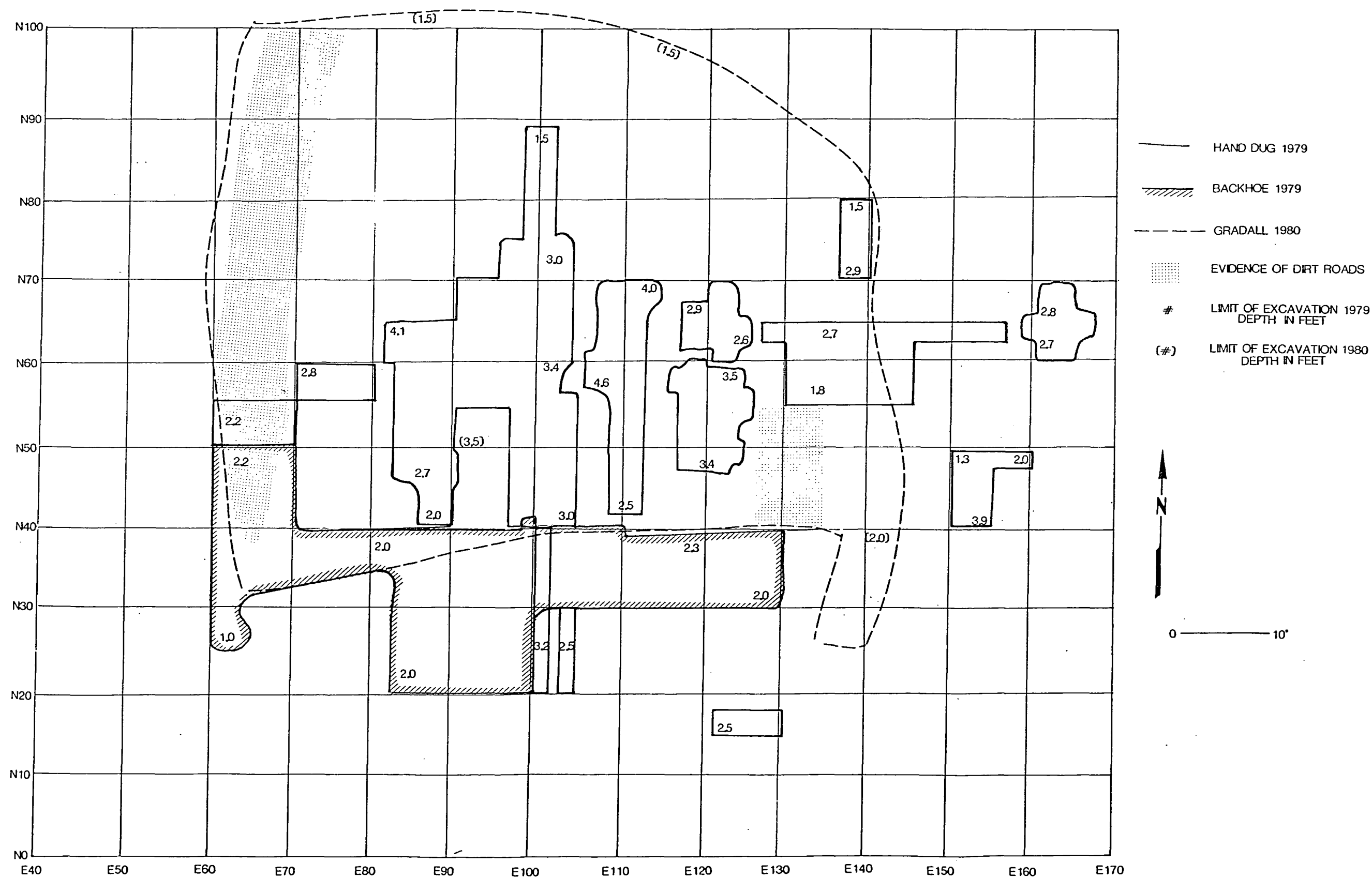
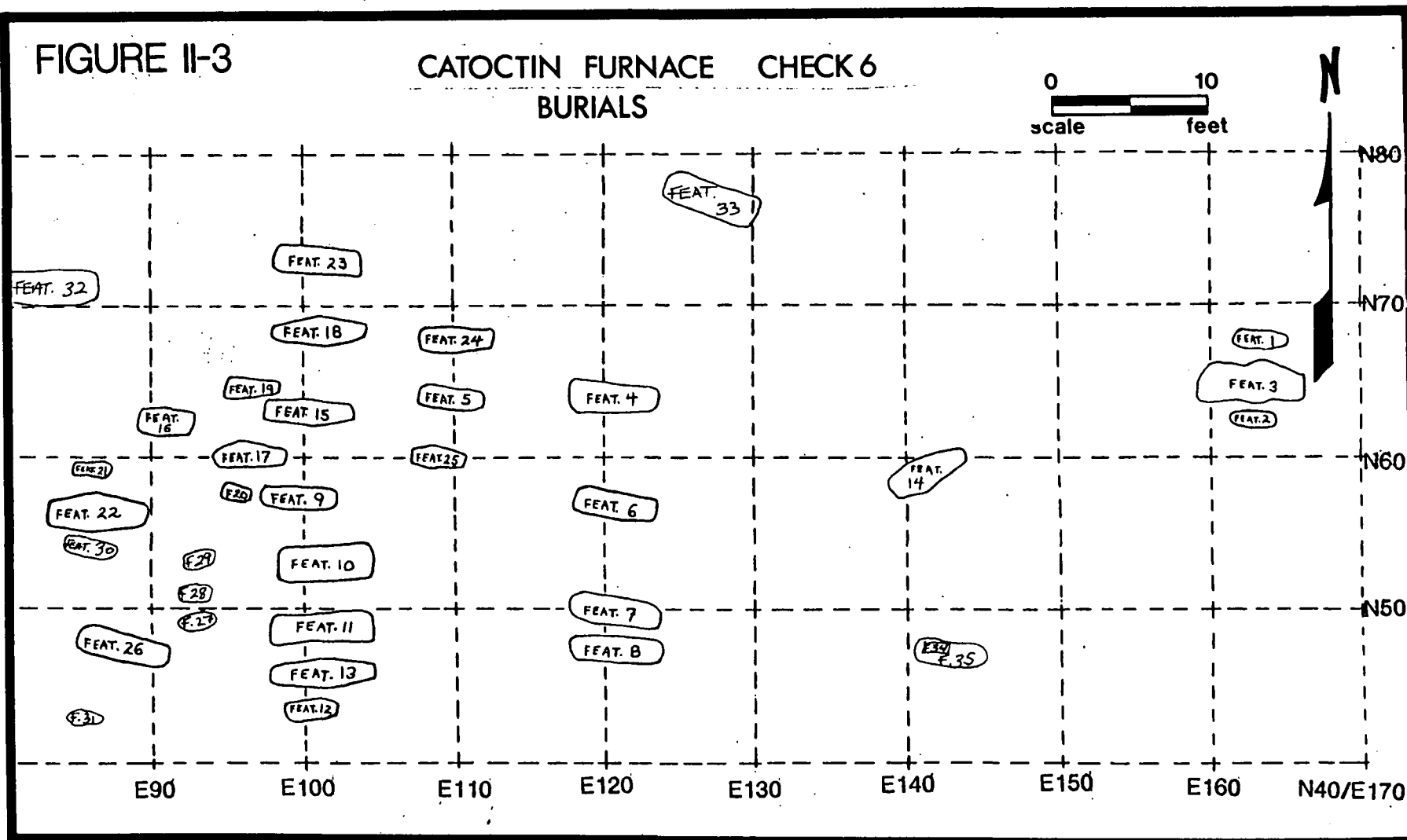


FIGURE II-2B AREAS OF EXCAVATION

FIGURE II-3

# CATOCTIN FURNACE CHECK 6

## BURIALS



A total of 26 graves was located and excavated during the 1979 season.

Depths of the burials (as measured from ground surface to top of coffin) varied from 2.4 ft below surface to 5.1 ft below surface. This variation tended to coincide with the size of the grave: the smaller graves were shallower, the large graves were deeper. Age and sex distributions within the cemetery appeared to be random. Dates of burials, as determined by artifact analysis, also appeared to be randomly distributed within the limits of the area excavated. Of the 26 graves excavated, four were marked by headstones, eight by head and footstones, and fourteen by no discernible markers at all.

Some of these gravemarkers were found during the course of excavation; as has been stated, they were not visible from the surface and therefore had not been numbered or mapped. All the gravemarkers were of crudely modified or unmodified local stone, mostly quartzite. No traces of incised or painted inscriptions were found. Those gravemarkers in situ had all been erected to stand on one narrow end and tended to be slightly inclined toward the grave that they marked.

Every grave contained a single coffin burial. Except for one coffin possibly of rectangular form (Feature 23), all coffins for which shape could be determined were of the "pinch-toe" type. This type of coffin is wider at the head end and narrower at the foot end (see Figure II-16). The coffins were of simple slat construction, and were fastened with various types of nails (handwrought, machine-cut, and machine-cut with handwrought heads). There were no coffin handles or similar hardware was found. The only other "grave goods" were 22 buttons, which suggested that at least four individuals had been buried in simple garments. The remains of 17 cuprous pins were also found, which suggested that at least seven other individuals had been buried in shrouds. There was no evidence of jewelry or of other clothing hardware. A few fiber fragments found in association with some of the buttons and pins were removed for identification. Traces of botanical remains, in the form of seeds, were found on or within three of the coffins.

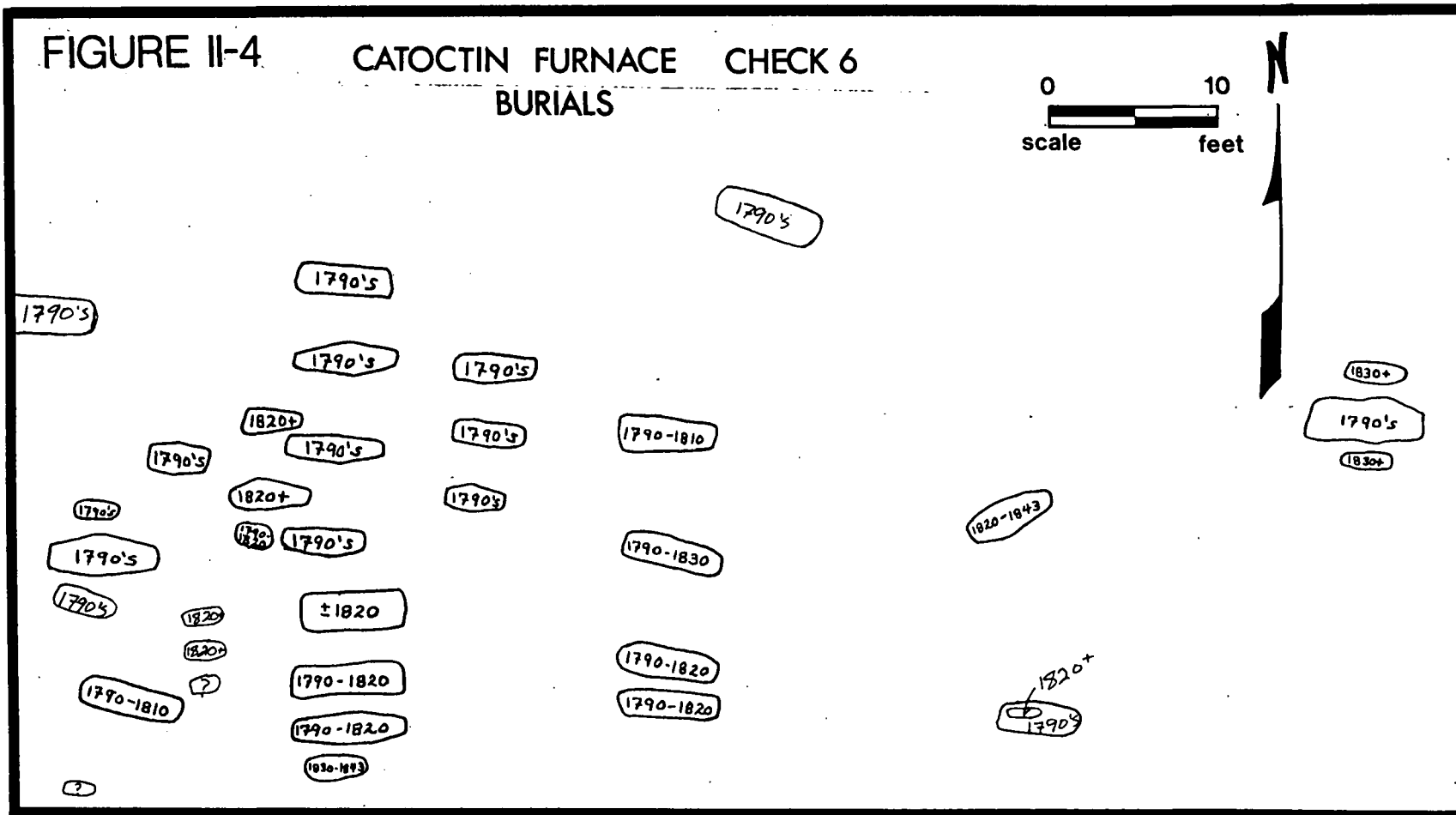
All artifact material found within the graves is consistent with a date range of circa 1790-1840. There is no discernible pattern of date distributions across the area excavated (see Figure II-4).

The individuals had all been buried supine, heads to the west, in extended position with hands folded over the abdomen. The condition of the skeletal remains varied from poor to excellent. The ages at death of the individuals ranged from neonate to elderly. All individuals appeared to be black.

In addition to the excavation and removal of burials, a major goal of the 1979 season was to determine the extent of the cemetery. At the close of the season, a backhoe cut trenches in the areas N20-50/E60-70 and N20-40/E60-130, where manual shovel trenching had already suggested that no graves were to be found (Fig. II-2b). It was thereby confirmed that there were no burials south of grid line N40 (toward the quarry) and none north of



CATOCTIN FURNACE CHECK 6  
BURIALS



NOTE: Since the major criterion for establishing these date ranges was technology of nail manufacture, the constraints which nails present as indicators of temporal span must be noted.

grid line N80 (at the edge of the slope toward the pond). During the course of the 1979 season, the ROW had been re-surveyed and posted at 138 ft east of the eastern edge of the existing roadway (i.e. grid line E138 ft). This established the eastern border of the archaeologically relevant area, but left the eastern extent of the actual cemetery still undetermined. The western edge of the cemetery, according to Mr. Renner, had been bounded by an old dirt road (Fig. II-2b). Evidence for this road was discovered west of grid line E80 in the form of densely packed earth and a fist-sized lump of slag. Furthermore, no graves were found west of this line.

#### Field Season 1980

Excavations in the 1980 season began with gradall removal of the topsoil over the entire portion of the site which fell within the new ROW, in order to locate every burial remaining in that area. The gradall removed the topsoil within grid area N40-100/E60-140, peeling off the soil in closely observed three-inch horizontal layers. Between 3.5 ft (in the vicinity of N50/E90) and two ft (in the vicinity of N40/E130) of topsoil was removed in this manner. (See Fig. II-2b).

The use of machinery satisfactorily revealed the location of all disturbances within the affected area. Some proved to be tree root disturbances, while others were identified as backfilled burials that had been excavated the previous season. Ultimately nine new graves were identified. However, the use of the gradall seems to have destroyed or removed fragile infant skeletons and their associated artifacts in at least two cases, Features 27 and 31. This occurred in spite of the most careful use of the machine and the halting of its operation at the first signs of any soil-color changes. It was concluded that the infant burials were so thin a deposit, and so faint in their visible outlines, that the loss of them must be regarded as an inevitable adjunct in the use of earth-moving machinery in excavations of this kind.

Evidence was found for an additional roadway, in the form of densely packed soil, which was filled with fist-sized stones, extending to about two feet below surface (Fig. II-2b). This hard-packed soil with stones may have been the "mantle" described by Orr and Son (see page I-1). It appears to have extended entirely across the site north to south in the grid area E125-135. No graves were found underneath it.

The results of the 1980 field season added to, but did not substantially alter, the conclusions drawn at the end of the 1979 season. Nine more graves were located and excavated, following the procedures and standards established in the 1979 season (see Methods of Burial Excavation, below). In positioning, depths, orientation, and dates, these interments were consistent with the pattern formed by the first 26 graves, but with a few exceptions. None of these nine graves had any visible gravemarking stones. The age range and racial attribution of these nine individuals were the same as those of the first 26. The remains of 10 cuprous pins showed that at least three more individuals had been buried in shrouds.

There were, however, some inconsistencies. In coffin shape there was more variability: four of the nine from the 1980 season were identified as rectangular, while only one of the 26 features from the 1979 season had a coffin possibly of rectangular shape. Furthermore, two graves (Features 29 and 33) were oriented with crania to the east, not the west. Since both of these were in rectangular coffins, it may simply be that in these cases an error was made and the coffin was inadvertently turned around during the interment.

One other case proved the exception to the rule that each grave contained only one interment, for two individuals (Features 34 and 35) were found buried in a common grave (see Plate II-40). Of these, one (Feature 34) was an infant about one year old, placed in a small coffin that had rested directly on top of the coffin of an adult female (Feature 35). This latter coffin was the only one with hardware other than coffin nails, in the form of four ferrous bars, presumably reinforcing brackets used in construction of the coffin.

In addition to the location and removal of the remaining graves within the ROW, some attention was paid during the 1980 season to the eastern portion of the cemetery, outside the ROW area. The grid system was extended eastward to E270 and surface probing was conducted to locate potential gravemarking stones. In addition to the 126 stones mapped in the previous season, 134 more of them were mapped (see Figure II-2), of which at least 47 were believed to be gravemarkers (head and/or footstones). The locations of these stones confirm the hypothesis that the north and south boundaries of the cemetery were approximately N40 and N80, with one possible exception, a stone at about N92/E252, which appeared to be a gravestone in situ despite its location. The eastern boundary of the cemetery probably lies on or near the E260 grid line. No stones even suspected as being gravemarkers were found beyond that line, and there is a steep cut-off less than 15 ft further east.

Also investigated during the 1980 field season was a pit outline that had been identified in the 1979 season. It was under the coffin bottom level of Feature 3, that feature having been intrusive into it. This pit outline proved to be an old tree stump mould with flecks of charcoal and burnt clay in it, suggesting that trees had been felled and stumps burned to clear this land at some time prior to its use as a cemetery.

#### Methods of Burial Excavation ("Ghoul's Manual")

In terms of the actual excavation of the burials, the site had presented several initial problems, notably the surface vegetation, and the fact that the gravestone markers were not in visible rows, many being below surface and some totally absent. Once trenching had begun, identification of burial pits was strictly on the basis of subtle soil color changes. The admixture of the red-brown topsoil and yellow subsoil in backfilling a grave resulted in flecks of one color against the other. Thus, grave pits were revealed by tiny flecks of

yellow subsoil in the reddish topsoil. These were very difficult to see, especially since the red (iron oxide) in the topsoil readily smeared and stained the yellow flecks. Only the most careful troweling could expose the grave pit outlines.

Other problems presented by this site were related to soil texture and acidity. Soil acidity directly affects the quality of bone preservation. On this site, preservation conditions varied widely, and some skeletal remains, especially those of children and infants, (e.g. Features 25 and 30) were totally gone. Even for adult skeletons, some bones survived only as a soil stain, while others remained in excellent preservation. The loose texture of the soil, while it allowed relatively easy digging, also created problems of compaction and the consequent damaging of bones beneath. This problem not only limited the use of earth-moving machinery (e.g. the backhoe could not be used in areas where graves were expected, although the gradall, which puts no downward pressure on the soil, seemed to cause no crushing of bone material), it even created problems for foot traffic, with the risk of compaction and cave-ins along the edges of excavations. Furthermore, the loose texture of the soil also fostered an environment conducive to root activity. More than one skeleton was extensively damaged by root growth into the bone; some even replaced it.

Procedures of the actual excavation were as follows: After locating a potential grave, four-inch increments were shoveled down to 1.5-2.0 ft below surface, using flat shovels (to reach the level below the root zone). Because the shovels smeared the soil colors, we then cleaned off the area with trowels, searching for the flecks of contrasting color that indicated the mixture of topsoil and subsoil. This procedure was complicated by root and rodent activity, and usually the soil color differences were more easily seen by a person standing at a short distance than by the person actually doing the troweling.

Having located and defined a definite grave pit, we shoveled out the grave and  $\pm$  2.0 ft on either side of it for a work area, usually to a depth of 3.5 ft below surface for an adult grave, or as little as 2.0 ft for an infant grave, using our judgment depending on the relative size of the grave pit. We found that the change from topsoil to subsoil tended to coincide with the top of the coffin: the gravediggers apparently dug into the loose topsoil down to the hard subsoil and then excavated an area just barely big enough for the coffin. The coffin itself was distinguishable as a particularly loose red organic soil.

All shoveling within the grave pit itself was preceded by testing with hand tools. Holding a trowel very loosely, we scraped into the presumed head end (western end) of the coffin for one to two inches, and if the top of the coffin was not found, the rest of the grave pit fill was carefully removed to that depth with a flat shovel. This procedure continued until the exposure of nails and loose red soil indicated that the coffin had been exposed, at which point the shovel was abandoned and sifting begun. Again using a trowel very loosely, we located the cranium, and having identified it, recovered it lightly with soil for protection. We then moved approximately two-thirds of the length of the grave pit toward the other end, and established the location of the lower limb long bones.

After finding the skull, the trowel was no longer used. The tools best suited for the exposing of the skeleton were generally of soft materials, i.e. organic materials or plastic. We used:

1. pointed sections of bamboo for flicking or scooping small amounts of fill
2. straw whisk brooms
3. paint brushes (1-inch, 2-inch, and 3-inch), preferably of natural bristles
4. artists' brushes
5. plastic scoops of different size, made by cutting down half-gallon, quart, and pint plastic jugs, thoroughly cleaned
6. probes, i.e. thin slivers of bamboo, wood or plastic, e.g. handle of the artists' brush, orange-wood manicure stick, etc.
7. dissecting scissors or other fine scissors for root hairs and root cutters for larger roots
8. quarter-inch mesh screening

The bone itself was very soft when wet and offered no more resistance to the tools than did the surrounding soil. The whisk broom, if improperly used, could have easily brushed the bone away. Metal tools, even a flexible palette knife, stood too great a risk of cutting into the bone, and the most effective tools were, as stated, wood, bamboo, and soft plastic. The fill within the coffin was loose enough that the soft plastic scoops we used could dig into it, but as the scoop could also pry bones loose, this could be done only with care.

The techniques by which we used these tools had to be learned by experience, and at all times an excavator unaccustomed with the techniques began by working with someone who had had experience. Although these techniques are not easily conveyed by words, some suggestions follow.

We found that the best method for using the bamboo section was to avoid scooping with it, but to employ a circular flicking motion (flicking on the downstroke) or a very lightly held fanning motion. The bamboo could also be used as a spoon or tiny scoop. The appropriate size of paint brushes and artists' brushes depends on the area to be cleaned. Natural bristle brushes are softer and less damaging than synthetic, but needed to be cleaned of mud frequently to maintain their effectiveness. Using a wood or plastic probe, such as the handle of the artists' brush, a gentle prod near but not on the surface of a bone could dislodge the soil surrounding it, and then a gentle brushing could remove the soil. A small or fragile bone can be held gently in place by a finger while the soil around it is being brushed away. The cutters for roots and scissors for root hairs needed to be kept very sharp for effectiveness. Roots and root hairs had to be trimmed carefully without any tugging, as they grew through and within the bones, and tugging

would dislodge or break the skeletal material.

The ideal working team consisted of three people: one person in the burial pit, and one person assisting by either digging, or by handing tools in to the pit and taking dirt out. The third person worked the sifter.

In exposing the remains, we always tried to work from the known to the unknown. We would begin with the tibiae, and follow them down to the foot bones. At this point, we would either excavate the foot bones or leave them buried in a mound of dirt until later, depending on the estimated difficulty of reaching them at a later time. We then worked up from the tibiae to expose the femora and locate the pelvic region.

Next, if the pelvis was in good condition, we exposed that, and followed with the hand bones, which were almost always placed in the pelvic area. We then proceeded to expose the upper limb long bones. If the pelvis was in poor condition, we cleaned the fill from around the illia on either side and worked upward until the upper limb long bones were encountered. Either way, the upper limb long bones were always cleared until the head of the humerus was located. This enabled us to isolate the thoracic area, which remained as a mound.

At this point, since the orientation of the cranium had been determined when it was first exposed, the occipital and parietal areas could be cleaned. The areas cleaned last (and in this order) were the feet, the pelvic region, the thoracic area, and the face. Soil from these more delicate bones could be brushed into hollows in the following areas and then scooped out: between the tibiae, on either side of the elbows, and next to the side of the skull. By excavating a bit lower than the level of the bones at these locations, we created more room for moving the dirt out. If it was deemed necessary to pedestal a bone, the best pedestal proved to be pyramidal, not perpendicular-sided, as the pyrimidal form gave more stability if a bone was accidentally jostled.

Nails encountered had to be removed to facilitate access for cleaning of the bones. The positions of the nails were recorded by placing each nail on the grave pit rim at the exact angle at which it had lain and at the exact distance from the rim on the outside as its distance had been from the rim within the pit. All nails were replaced in their original positions after final cleaning. Pins or other artifacts lying over a bone were occasionally lifted while the bone was being cleaned and then immediately replaced.

Aside from not using metal tools to expose the skeletal remains, other precautions were employed. The skull was usually about three inches below the top of the coffin, and we had to take care to not step within the grave pit in any area where fragile bones (especially the hollow cranium) were expected to occur. We had to constantly watch the edges of the excavations for cave-ins. We had to be on guard, while excavating into the coffin, to distinguish between coffin outline and burial pit outline, in the cases where they differed, and to excavate only the former. We had to be careful with moving loose dirt out, so as not to scatter it over already cleaned bones, because re-cleaning them caused serious problems with dislodgement. It was necessary to not over-clean the facial

bones, especially the orbits and nasal area, for they were generally too fragile, and could be better cleaned in the lab.

Certain standardized procedures were observed in photographing the burials. Burials were photographed at first appearance of the grave pit, with the grave pit perimeter outlined by trowel-point; otherwise it would not have shown up in the photograph. All burials were photographed again after final cleaning of the skeleton. We used a chalkboard, north arrow and scale in each photograph. It was necessary to find a position as vertical as possible over the skeleton to frame all of it without distortion. The use of a step-ladder might have facilitated this process, but the soft soil would have caused problems with cave-ins. In addition to overall photographs of each skeleton, close-up photographs of significant details were taken where appropriate.

Standardized procedures were also employed in drawing the burials. Scale drawings were made of the first appearance of the grave pit, of the top of the coffin (showing plan of nails visible at that depth, relationship of coffin outline and grave pit outline, relationships to other nearby graves, etc.), and of the final appearance of the skeleton. All burial drawings were in the scale of one inch = one foot. Nails were drawn as a T for nails on their sides, or J for a bent nail, as an X for a nail with its head up, or as an X with explanatory caption for a nail positioned point up. The technique we used in drawing the bones involved measuring in key locations from the grid coordinates with tapes and plumb bobs, and then sketching in by eye the areas between these points. The points so measured-in were (in sequence):

- Between the two talus bones, or distal end of each tibia
- Distal end of femora
- Pubic symphysis
- Caudal end of visible vertebral column
- Visible apex of illiac crests
- Cranial end of visible vertebral column
- Distal end of radii
- Distal end of humerii
- Proximal end of humerii
- Sternal end of clavicles
- Gonion (angle of mandible)
- Nasion (bridge of nose)
- Most prominent visible point of frontal (along mid-sagittal plane)
- Most prominent visible point of parietal (along mid-sagittal plane)
- Most prominent visible point of temporal
- Mastoid, if visible
- Any other cranial point appropriate, depending on positioning of skull

Other drawing systems equally effective, and possibly faster, include the use of a constructed wooden frame with a nylon filament grid every .5 ft. This grid is laid over the burial, and the bones sketched on graph paper square by square. Another system involves laying out two measured lines, parallel to the site grid axes but within the grave pit, to form a cross bisecting the grave at right angles. These two lines can be plotted relative to the over-all site grid, and points can then

be measured in from these two lines to each bone. The advantage of this system over the one we actually used is that by placing the string lines within the grave rather than at ground surface level, as we had done, plumb bobs and the extra persons needed to manipulate them can be eliminated.

By the time all scale drawings and photographs had been completed, the bones had been exposed to the air long enough to have dried and hardened somewhat. They could then be carefully lifted and bagged. Larger or sturdier bones went into extra-heavy-duty paper bags while smaller or more fragile bones were put in open plastic containers. Samples or small finds such as pins were put in baggies or film cans with a string tag. All labels were written in indelible ink. All bags of bones were set into cardboard cartons, one skeleton to a carton, and we were very careful never to set a filled paper bag or carton directly on the ground, as they tend to absorb moisture and then disintegrate.

In lifting bones, as in cleaning and drawing them, we started with the feet. First the foot bones were lifted and bagged and the loose soil in that area checked for missed bones. The the lower limb long bones were freed by running the fingers gently underneath each bone until it was completely loosened. It could then be lifted by holding at two points, i.e. both ends of the diaphysis. Bones of the hands were treated exactly like those of the feet, and the upper limb long bones like those of the lower limb. The pelvic halves were loosened by working under each bone with the fingers until it was loose, being careful of the pubis and other projecting features of the bone. Then the ribs and clavicles were given the same treatment as the long bones. The vertebral column was lifted as intact as possible, or in one mass if the vertebrae were adhering to one another. Effort was made to keep the vertebrae in order. Further careful excavation was frequently required to lift the scapular blades intact.

If the cranium and mandible were in good condition, we loosened the soil underneath them with fingers as far as possible until they were entirely freed. We then gently lifted the cranium with two hands held under the cranial vault. While one person held the cranium in both hands, another slipped a bag over his hands until the skull rested on the bottom of the bag, with its weight on its cranial vault, not the face or base. Caution was exercised regarding all loose teeth. The mandible was lifted and bagged in similar manner.

If the cranium and mandible were in poor condition, we loosened the soil beneath them down to the subsoil using fingers and/or a bamboo probe. The cranium and mandible were then lifted out as one mass using two hands or a flat shovel, and bagged intact with the dirt.

After retrieval of all bone and artifact material, the remaining loose fill of the coffin was troweled out and the sides of the pit scraped down until sterile soil was reached. All this material was screened.





PLATE II-1 OVERVIEW OF CEMETERY



PLATE II-2 EXCAVATION METHOD



PLATE II-3 GRAVE PIT WITH STONE MARKERS

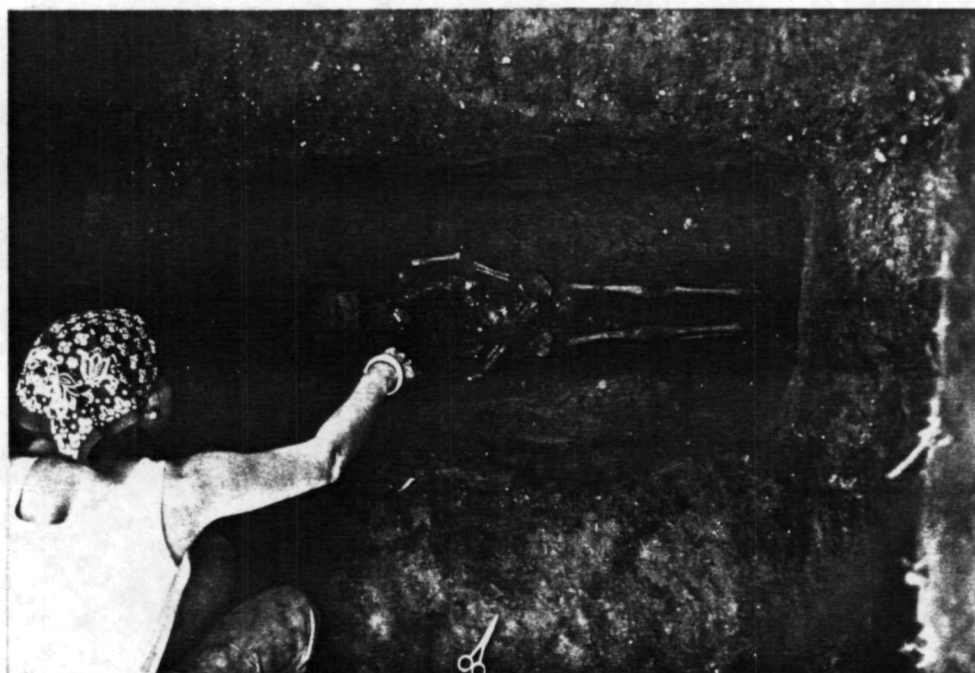


PLATE II-4 GRAVE EXCAVATIONS

Feature No. 1: North 65-70/East 160-165

Gravestone markers: Headstone # 20  
Footstone # 21

First appearance of grave : .8' below surface

First appearance of coffin : 2.5' below surface

Dimensions of coffin : 1.4' east-west x indeterminate north-south

Dimensions of burial : .7' east-west x .4' north-south

Depth of top of cranium : 2.4' below surface

Depth of top of pelvis : pelvis not located

Depth of lowest point : 2.5' below surface  
located: lower limb area

Age, sex and condition : The burial was that of an infant whose bones were in a very bad condition of preservation. No lower limb or pelvic bones could be identified with any certainty. The upper limb, cranial, vertebrae and ribs were present. Sex could not be determined. \*

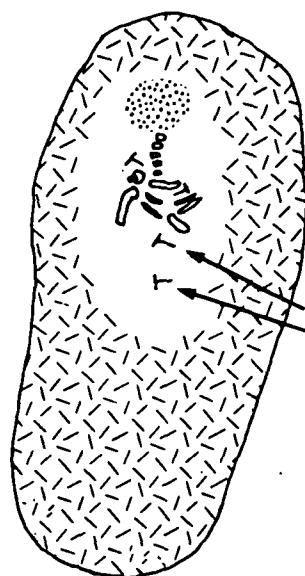
Artifacts: 22 machine cut, machine head-L headed nails (20 treated, 2 not treated)  
1 hand wrought, rose headed nail (not treated)  
6 shroud pins, cuprous (whole and fragments)  
1 fibre sample  
1 soil sample

Date Range: 1830 +

#### Discussion

Feature 1 and 2 were buried in obvious relation to Feature 3, but they are + 40 years later in date. The family relationship among these 3 graves, assuming there is one, can only be surmised. Coffin shape of Feature 1 and 2 could not be determined.

\*In his preliminary analysis, Dr. Angel was not able to determine the sex of this skeleton. It was identified as a newborn infant. (See Appendix 2).



CUPROUS STRAIGHT PINS

# LEGEND

- GRAVE OUTLINE
- TRACES of BONE
- YELLOW SOIL

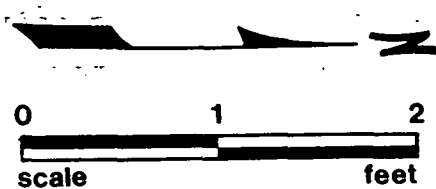


FIGURE II-5

CATOCTIN FURNACE CHECK 6

FEATURE 1

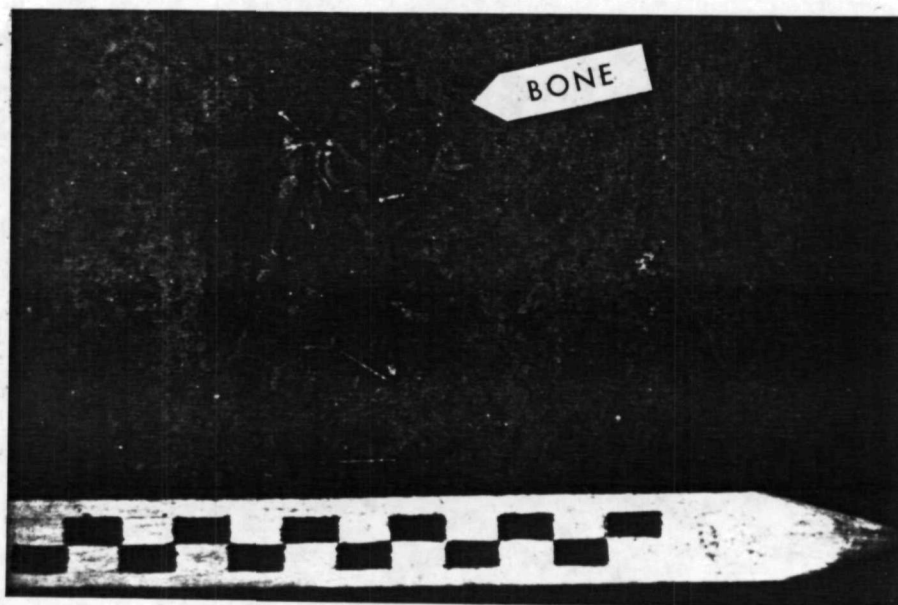


PLATE II-5 FEATURE 1

Feature No. 2: North 60-65/East 160-165

Gravestone markers: Headstone # 17

Footstone: unnumbered stone

First appearance of grave : .9' below surface

First appearance of coffin: not observed

Dimensions of coffin : indeterminate

Dimensions of burial : 1.5' east-west x .6' north-south

Depth of top of cranium : 2.8' below surface

Depth of top of pelvis : 3.0' below surface

Depth of lowest point : 3.0' below surface  
located: pelvis area

Age, sex and condition : The burial was that of an infant whose sex could not be determined. The bones were in very poor condition. The cranium, vertebra, ribs and lower limb bones were more or less present. The upper long bones were missing. \*

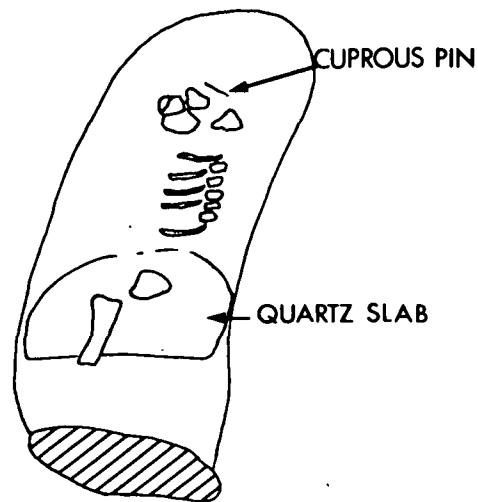
Artifacts: 7 machine cut, headless nails (6 treated, 1 not treated)  
6 machine cut, machine head-L headed nails ( 5 treated, 1 not treated)  
3 Machine cut, machine head - T headed nails (2 treated, 1 not treated)  
2 machine cut (head?) treated  
3 cuprous shroud pins  
1 fiber sample with pin  
1 soil sample from under the center of burial, just below pelvic region

Date Range: 1830 +

Discussion

See Feature 1

\* In his preliminary analysis, Dr. Angel was not able to determine the sex of this skeleton. It was identified as a newborn infant. (See Appendix 2).



# LEGEND

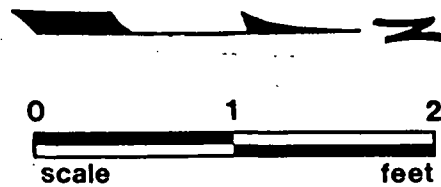


FIGURE II-6

CATOCTIN FURNACE

CHECK 6 FEATURE 2

Feature No. 3: North 60-70/East 155-170

Grave markers: Headstone: none  
Footstone: none

First appearance of grave : .9' below surface

First appearance of coffin: 2.35' below surface

Dimensions of coffin : 5.9' east-west x 2.2' north-south

Dimensions of burial : 5.5' east-west x 2.1' north-south

Depth of top of cranium : 3.72' below surface

Depth of top of pelvis : 4.1' below surface

Depth of lowest point : 4.25' below surface  
located: between petellae

Age, sex and condition : The burial was that of a young adult female in her early 20's. The bones were in excellent condition after some exposure to the air. \*

Artifacts: 9 hand wrought - T headed nails (6 treated, 3 not treated)  
35 hand wrought - Rose headed nails (28 treated, 7 not treated)  
1 prehistoric potsherd  
1 rhyolite biface  
1 rhyolite flake  
2 quartz flakes  
1 fibre sample w/cuprous pin  
3 soil samples (cranial, thoracic, pelvic)

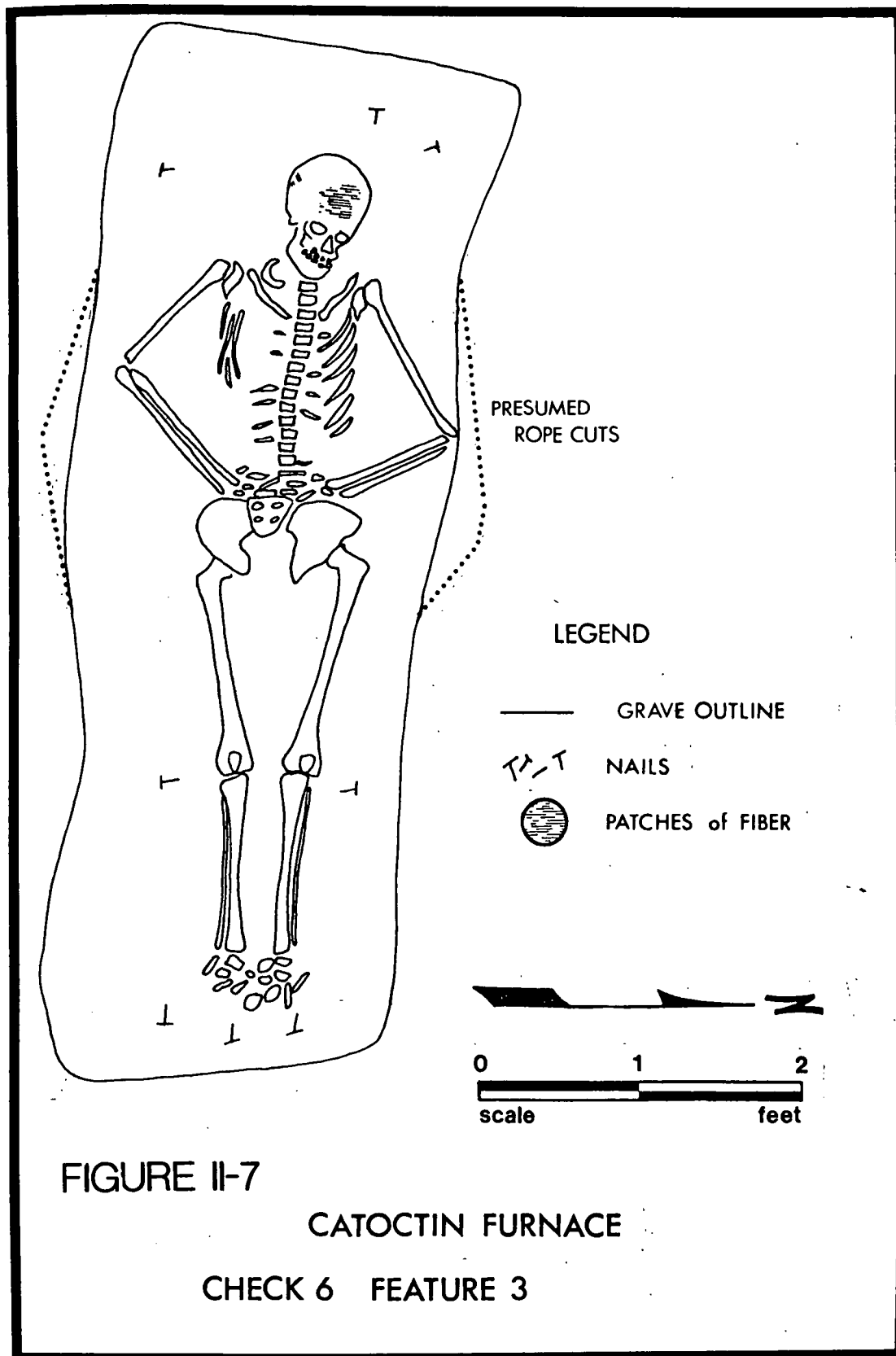
Date Range: 1790 - 1800

Discussion

The coffin, of shouldered pinch-toe form, apparently caved in on both sides and the skeleton sunk below the level of the bottom of the coffin. Fibre fragments were found on the skull only. Two probably prehistoric pits which were apparently intruded into by Feature 3, were found after removal of burial. The outline of the burial pit suggests the use of a rope, held on either side of the grave, to lower the coffin into the grave pit. For relationships with Feature 1 and 2 see Discussion of Feature 1.

\*  
Dr. Angel's preliminary analysis identifies this skeleton as a female of 22 to 27 years of age. (See Appendix 2).





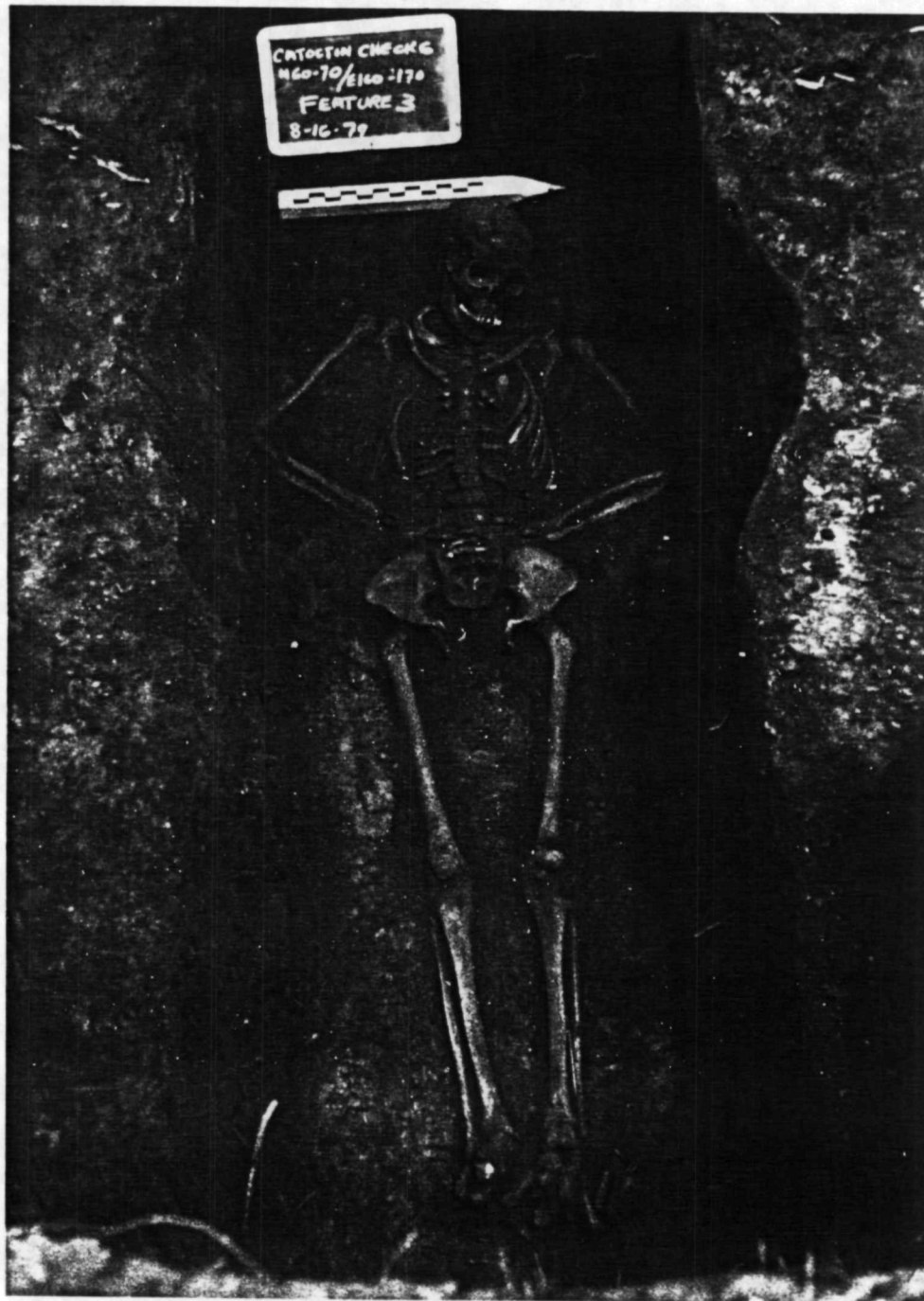


PLATE II-6 FEATURE 3

Feature No. 4: North 60-70/East 115-125

Gravestone markers: Headstone # 78  
Footstone # 77

First appearance of grave : 1.5' below surface

First appearance of coffin: 3.4' below surface

Dimensions of coffin : 5.9' east-west x 1.6' north-south

Dimensions of burial : 5.8' east-west x 1.5' north-south

Depth of top of cranium : 3.7' below surface

Depth of top of pelvis : 4.08' below surface

Depth of lowest point : 4.15' below surface  
located: between patellae

Age, sex and condition : This burial was that of an adult male. His bones were in poor condition with a lot of root disturbance and a rock which sat over the mandible and maxilla. The sternum was missing. \*

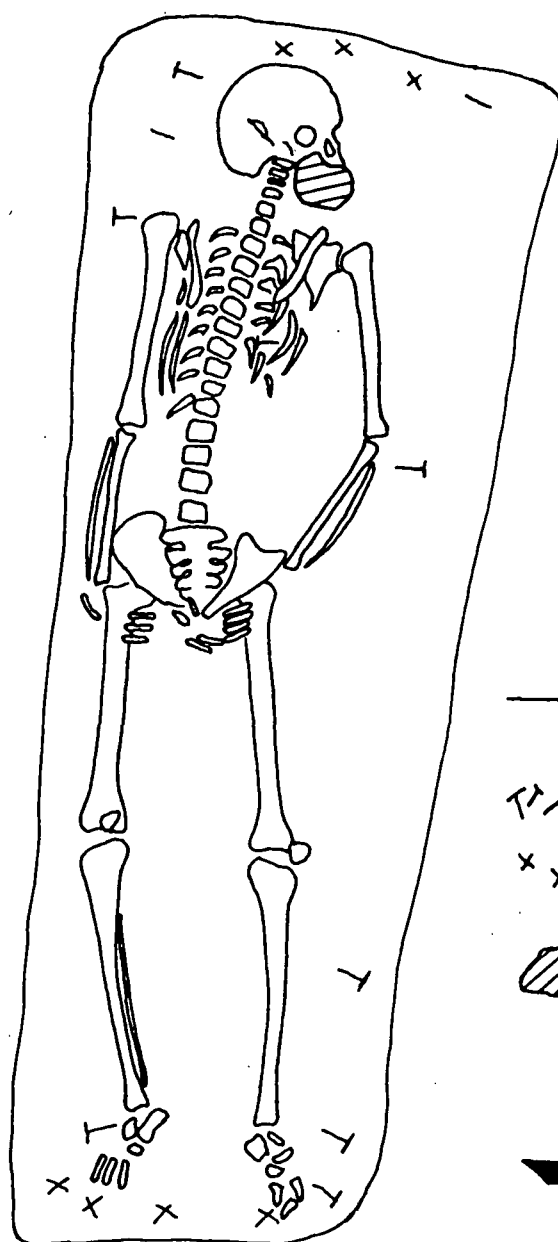
Artifacts: 41 machine cut, hand headed nails (35 treated, 6 not treated)  
3 machine cut shouldered nails  
1 charcoal sample  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1790 - 1810

Discussion

There was no evidence of clothing or shroud in this burial. Coffin form undetermined.

\* Dr. Angel's preliminary analysis identifies this skeleton as probably a male of 33 to 43 years of age. (See Appendix 2).



# LEGEND

- GRAVE OUTLINE
- T T NAILS
- x x NAILS (VERTICALLY ORIENTED)
- STONE

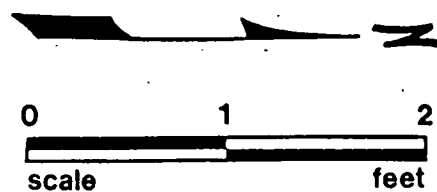


FIGURE II-8

CATOCTIN FURNACE

CHECK 6 FEATURE 4

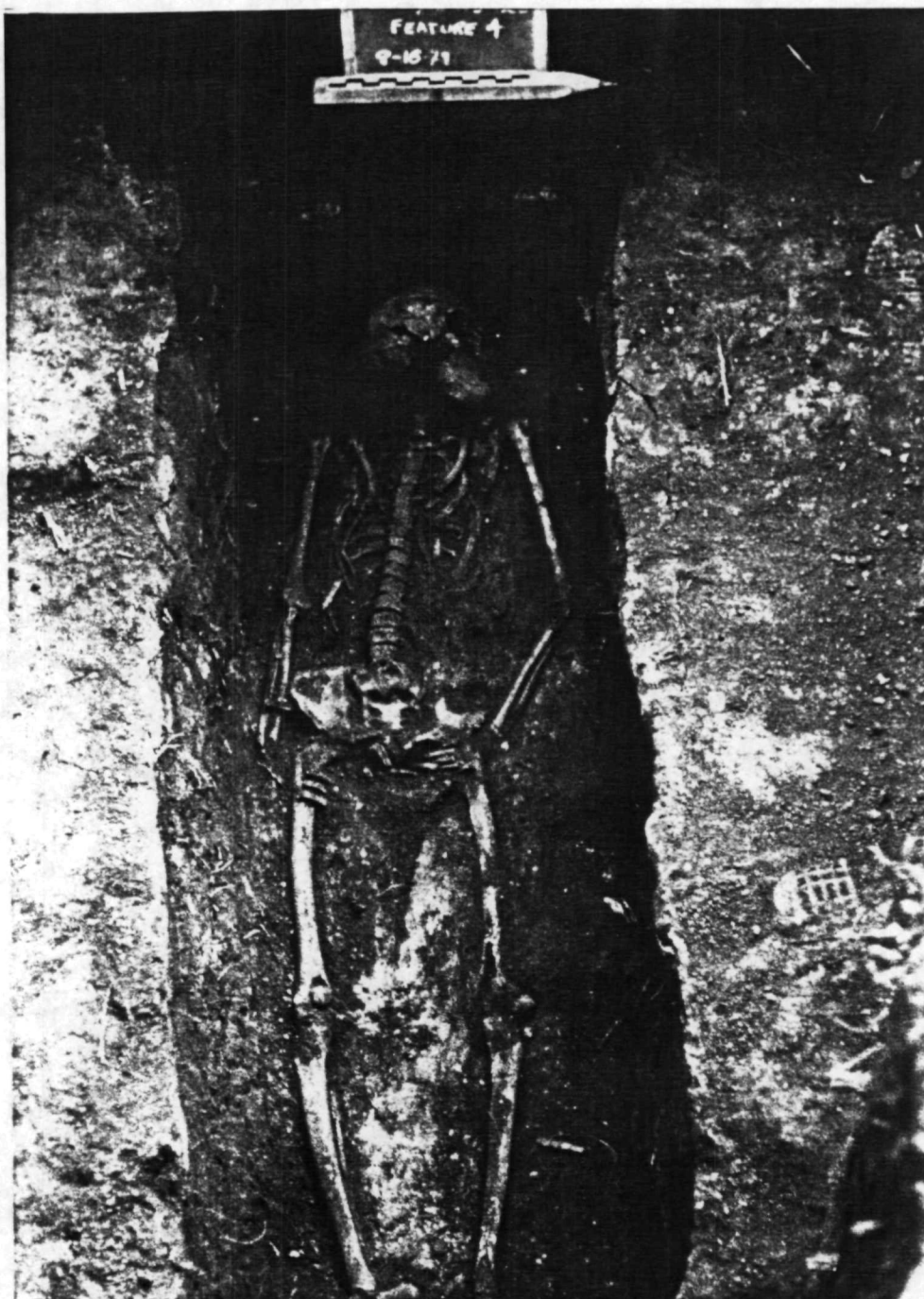


PLATE II-7 FEATURE 4

Feature No. 5: North 60-70/East 105-115

Gravestone markers: Headstone # 90  
Footstone: unnumbered stone

First appearance of grave : 2.2' below surface

First appearance of coffin: 4.05' below surface

Dimensions of coffin : 3.9' east-west x .9' north-south

Dimensions of burial : indeterminate

Depth of top of cranium : 4.05' below surface

Depth of top of pelvis : no pelvis

Depth of lowest point : 4.35' below surface  
located: .2' south-east of maxilla

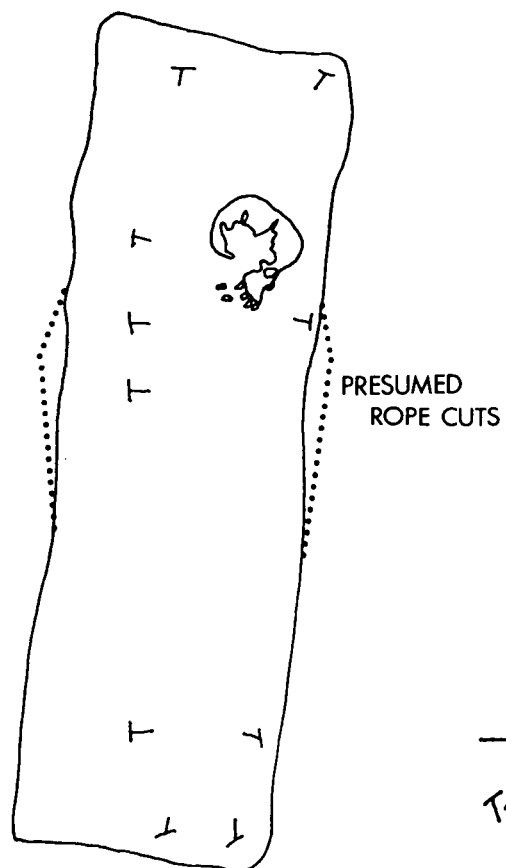
Age, sex and condition : This is a burial of a child ± 4 years of age, sex indeterminate. The bones were in very poor condition, only the cranium, maxillary and a few scattered fragments of long bones were present. \*

Artifacts: 28 hand wrought, rose headed nails (25 treated, 3 not treated)  
fibre sample (shroud) with cuprous pin (not in catalogue).

Discussion

It was theorized that grave diggers, in disturbing a prior burial, might reinter the disturbed fragments in a new coffin. This might explain the remains found in Feature 5. However, note Feature 25; perhaps this is simply a case of differential preservation. Note grave pit outline, as with Feature 3, suggests use of a rope to lower coffin. Coffin was apparently of straight-sided pinch toe form.

\* Dr. Angel's preliminary analysis identifies this skeleton as possibly a female, about 3 years old (see Appendix 2). It is hoped further analysis by Dr. Angel will resolve this discrepancy.



# LEGEND

— GRAVE OUTLINE  
 T T NAILS

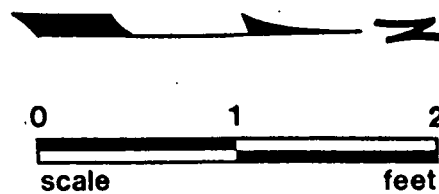


FIGURE II-9

CATOCTIN FURNACE

CHECK 6 FEATURE 5



PLATE II-8 FEATURE 5



Feature No. 6: North 55-60/East 115-125

Gravestone markers: Headstone # 74  
Footstone # 70

First appearance of grave : 1.3' below surface

First appearance of coffin : 3.85 below surface

Dimensions of coffin : 6.0' east-west x 1.9' north-south (est. of coffin depth .5')

Dimensions of burial : 5.75' east-west x 1.6' north-south

Depth of top of cranium : 4.1' below surface

Depth of top of pelvis : 4.15' below surface

Depth of lowest point : 4.3' below surface  
located: between knees

Age, sex and condition : The burial was that of an adult male. The sternum was missing and the bones were in poor to fair condition. Coffin nails were noted throughout the body area as if small slats or similar coffin construction was used. \*

Artifacts: 1 hand wrought - L headed nail (treated)  
12 hand wrought - Rose headed nails (treated)  
12 machine cut - hand headed nails (treated)  
13 unknown nails - hand headed (10 treated, 3 not treated)  
1 machine cut, machine head (possibly early stamped head)  
1 machine cut, damaged head  
9 buttons (brass, varying sizes, all plain flat front, ring eye back; Ref. Hume 1970, p. 91 types 7, 8, 9)  
1 sample of fibre with button under skull (button included in above 9)  
3 soil samples (cranial, thoracic, pelvic)

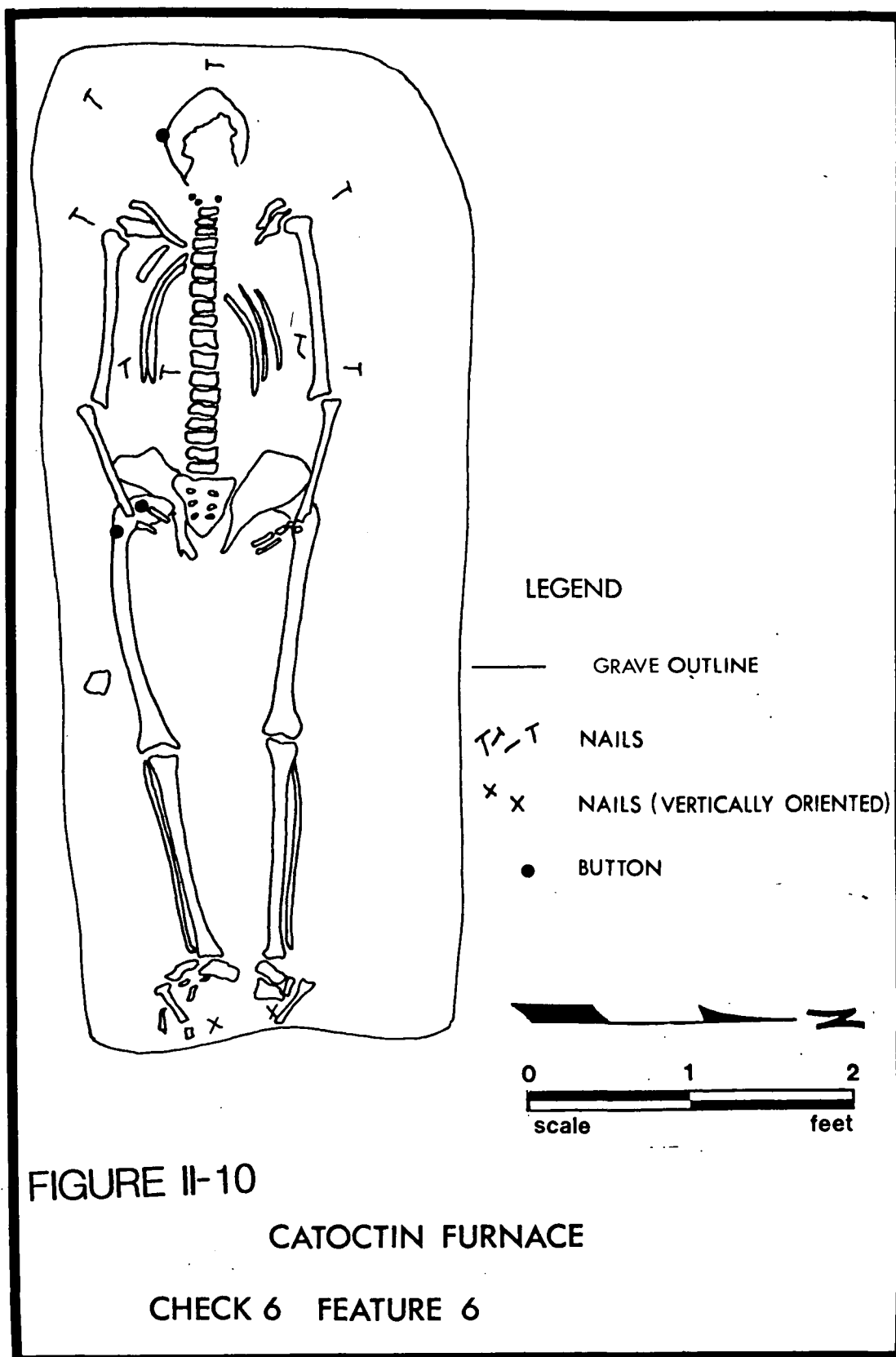
Date Range: 1790 - 1830

Discussion

Coffin form could not be determined. The coffin was made with both cut and rose head nails; cf. Feature 10 for confirmation of hypothesis of slat construction of coffin. The individual was buried in clothing, including a cocked hat (note buttons in cranial area). Unfortunately, most of the buttons were found in disturbed soil after removal of the skeleton, so it is difficult to say much more about the nature of the clothing they represent. For example, the 2 buttons found near the right wrist might have been shirt cuff buttons, trouser buttons, vest or coat buttons, or served some other purpose. Features 7 and 8 were exposed at 4 feet and 7 feet south of Feature 6 respectively and on parallel alignment with Feature 6.

\*

Dr. Angel's preliminary analysis identifies this skeleton as a male of 30 to 40 years of age. (See Appendix 2).



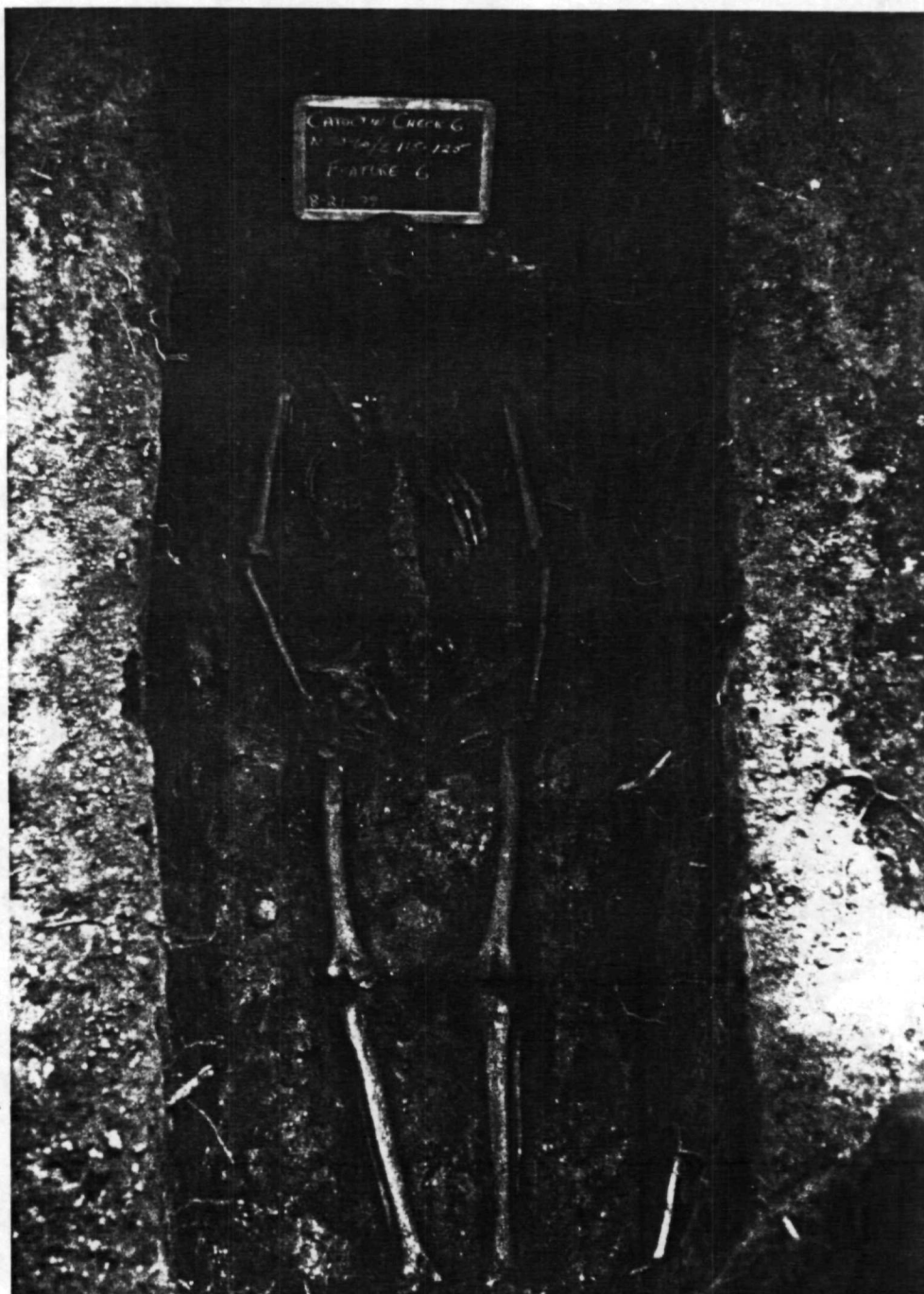


PLATE II-9 FEATURE 6

Feature No. 7: North 45-55/East 115-125

Gravestone markers: Headstone # 72  
Footstone: none

First appearance of grave : 2.1' below surface

First appearance of coffin: 4.1' below surface

Dimensions of coffin : 6.2' east-west x 2.1' north-south

Dimensions of burial : 5.5' east-west x 1.6' north-south

Depth of top of cranium : 4.3' below surface

Depth of top of pelvis : 4.6' below surface

Depth of lowest point : 4.9' below surface  
located: base of pelvis

Age, sex and condition : This was a burial of an elderly female with  
all bones present. \*

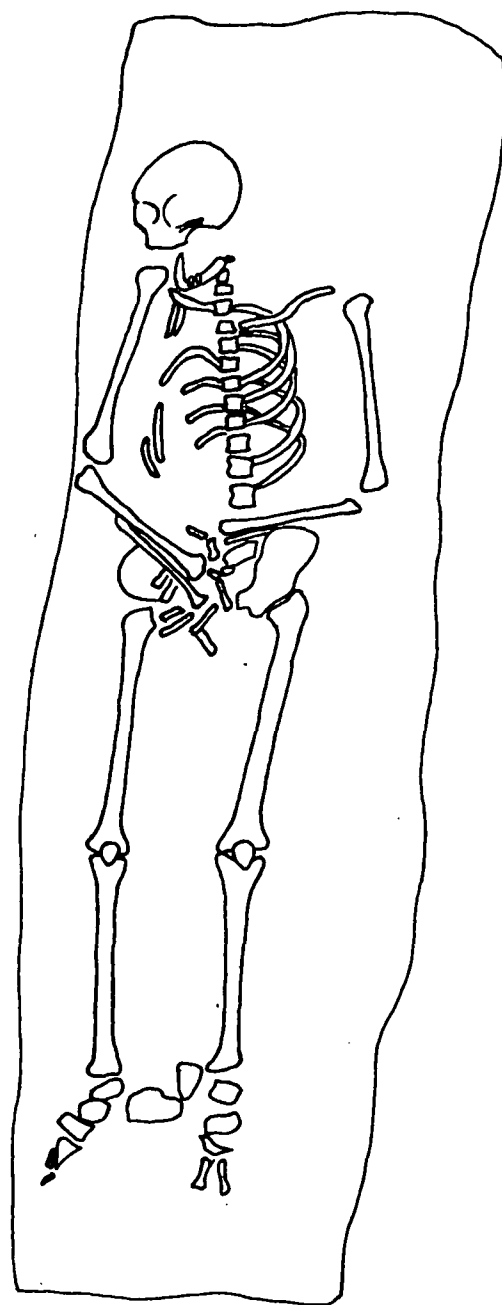
Artifacts: 41 hand wrought - L headed nails (35 treated, 6 not treated)  
6 machine cut, hand headed nails (treated)  
2 probable hand wrought but possible cut nails - hand headed  
(not treated)  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1790 - 1820

Discussion

Coffin form was not determined. There were no signs of clothing or shroud except for a round ferrous stain, washer-like, just west of left shoulder. Features 7 and 8 were on a parallel east-west axis with only .7 feet between them.

\*Dr. Angel's preliminary analysis identifies this skeleton as female, 35-45 yrs. (see Appendix 2). It is hoped further analysis by Dr. Angel will resolve this discrepancy.



LEGEND

— GRAVE OUTLINE

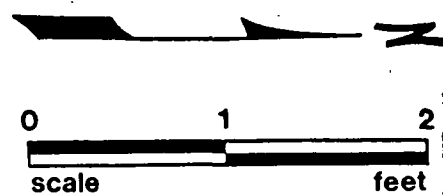


FIGURE II-11

CATOCTIN FURNACE

CHECK 6 FEATURE 7

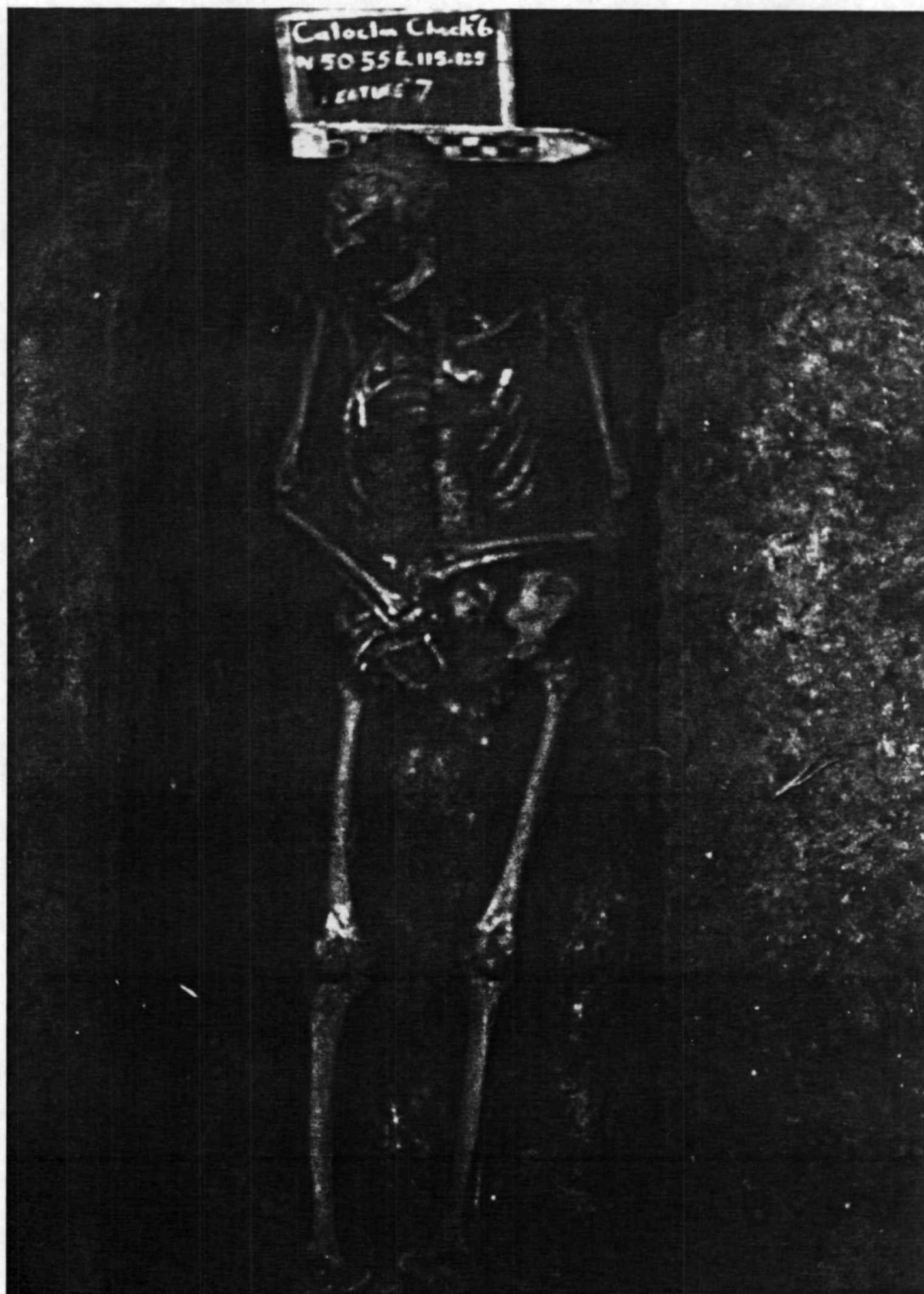


PLATE II-10 FEATURE 7

Feature No. 8: North 45-50/East 115-125

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : 2.1' below surface

First appearance of coffin: 4.1' below surface

Dimensions of coffin : 6.0' east-west x 1.6' north-south

Dimensions of burial : 5.6' east-west x 1.6' north-south

Depth of top of cranium : 4.4' below surface

Depth of top of pelvis : not taken

Depth of lowest point : 4.8' below surface  
located: between knees

Age, sex and condition : This burial was that of an adult male whose bones were in fairly good condition. The sternum and most of the maxillary teeth were missing. Bones of left hand were completely in situ from carpals through metacarpals. \*

Artifacts: 21 machine cut, machine headed nails (16 treated, 5 not treated)  
3 machine cut, hand head - T headed nails (treated)  
10 machine cut, shouldered nails (treated)  
1 machine cut, hand headed nail (treated)  
1 nail, probably wrought (not treated)  
1 machine cut, early machine headed nail (treated)  
4 buttons (2 brass, 2 white metal flat front, ring eye back  
Ref. Hume 1970, p. 91 types 7, 8, 9)  
3 soil samples (cranial, thoracic, pelvic)

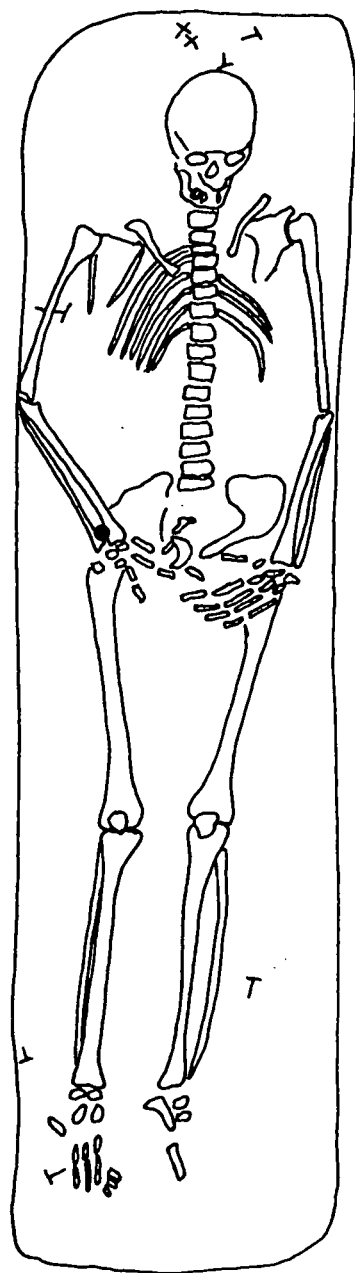
Date Range: 1790 - 1820

#### Discussion

Coffin form was of undetermined pinch toe type. Buttons were found under right hand and under pelvis, in area of right hand, suggesting evidence of clothing. The dental area revealed severe periodontal disease, including loss of teeth and some mandibular resorption.

Note close proximity of Features 7 and 8, discussed under Feature 7.

\* Dr. Angel's preliminary analysis identifies this skeleton as a male of 50 to 65 years of age. (See Appendix 2).



# LEGEND

- GRAVE OUTLINE
- T T T NAILS
- x x NAILS (VERTICALLY ORIENTED)
- BUTTON

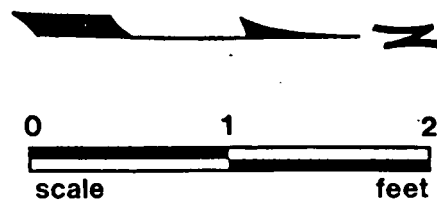


FIGURE II-12

CATOCTIN FURNACE

CHECK 6 FEATURE 8



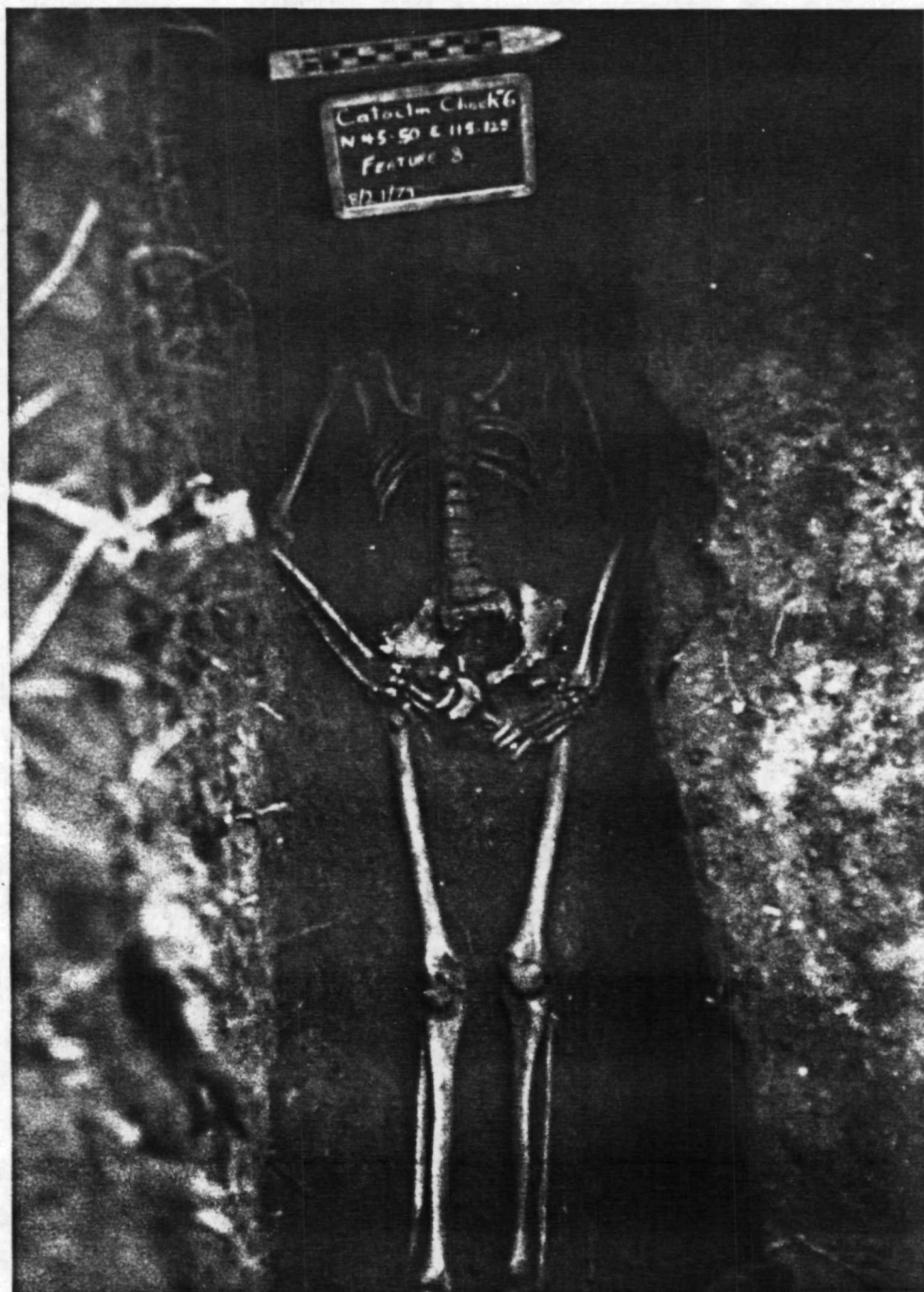


PLATE II-11 FEATURE 8

Feature No. 9: North 55-60/East 95-105

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : 1.8' below surface

First appearance of coffin: 4.0' below surface

Dimensions of coffin : 5.0' east-west x 1.3' north-south

Dimensions of burial : 4.85' east-west x 1.2' north-south

Depth of top of cranium : 4.1' below surface

Depth of top of pelvis : 4.4' below surface

Depth of lowest point : 4.6' below surface  
located: between knees

Age, sex and condition : This is a burial of a juvenile (12-16) female whose bones were in various states of preservation; the skull and some long bones were in reasonably good condition; the pelvis, ribs and other bones were in poor condition. \*

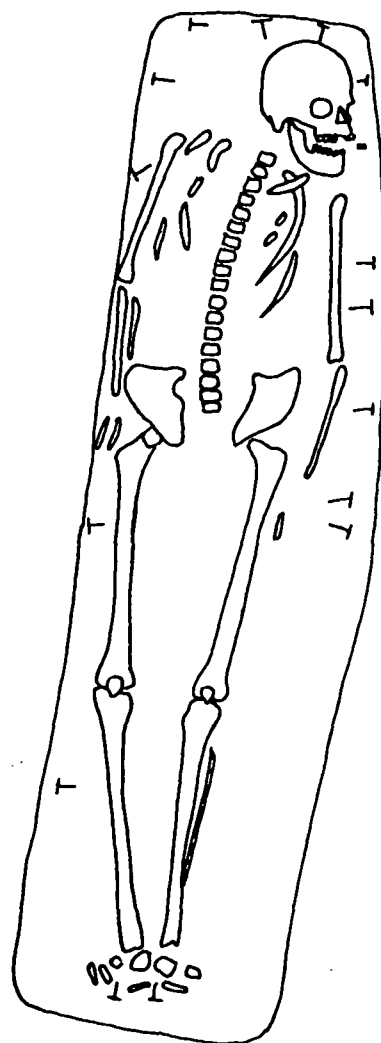
Artifacts: 36 hand wrought - rose headed nails (30 treated, 6 not treated)  
1 hand wrought - L headed nail (treated)  
1 bone fragment from grave fill above coffin level  
1 seed  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1790 - 1800

Discussion

Coffin was of shouldered pinch-toe form. There was no evidence of clothing or shroud. Some of the teeth showed severe decay.

\* Dr. Angel's preliminary analysis identifies this skeleton as male, 14-15 yrs. (see Appendix 2). It is hoped that further analysis by Dr. Angel will resolve this discrepancy.



# LEGEND

— GRAVE OUTLINE

T T NAILS

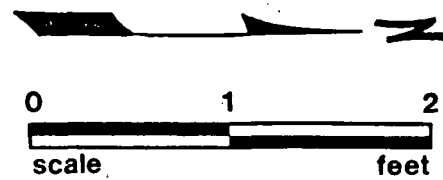


FIGURE II-13

CATOCTIN FURNACE

CHECK 6 FEATURE 9



PLATE II-12 FEATURE 9

Feature No. 10: North 50-55/East 95-105

Gravestone markers: Headstone # 94  
Footstone: none

First appearance of grave : 1.8' below surface

First appearance of coffin: 4.0' below surface

Dimensions of coffin : 6.8' east-west x 2.25' north-south

Dimensions of burial : 5.9' east-west x 1.6' north-south

Depth of top of cranium : 4.4' below surface

Depth of top of pelvis : 4.6' below surface

Depth of lowest point : 4.9' below surface  
located: between ankles.

Age, sex and condition : This burial was that of an adult male (late teens) with most of his bones present. \*

Artifacts: 21 machine cut, machine head - L headed nails (18 treated,  
3 not treated)  
4 screws, machine made, blunt point (treated)  
6 machine cut, machine head - modern square headed nails  
2 machine cut, early machine head nails (treated)  
3 machine cut, headless nails (treated)  
7 unidentified cut nails (not treated)  
1 unidentified hand headed nail (not treated)  
1 sample of wood with nail  
7 buttons (bone, 1.6 cm diameter, flat, 5 holed; Ref. Hume 1970  
p. 91, not quite like types 19 or 20)  
1 ceramic fragment (whiteware)  
3 soil samples (cranial, thoracic, pelvic)

Date Range:  $\pm$  1820

#### Discussion

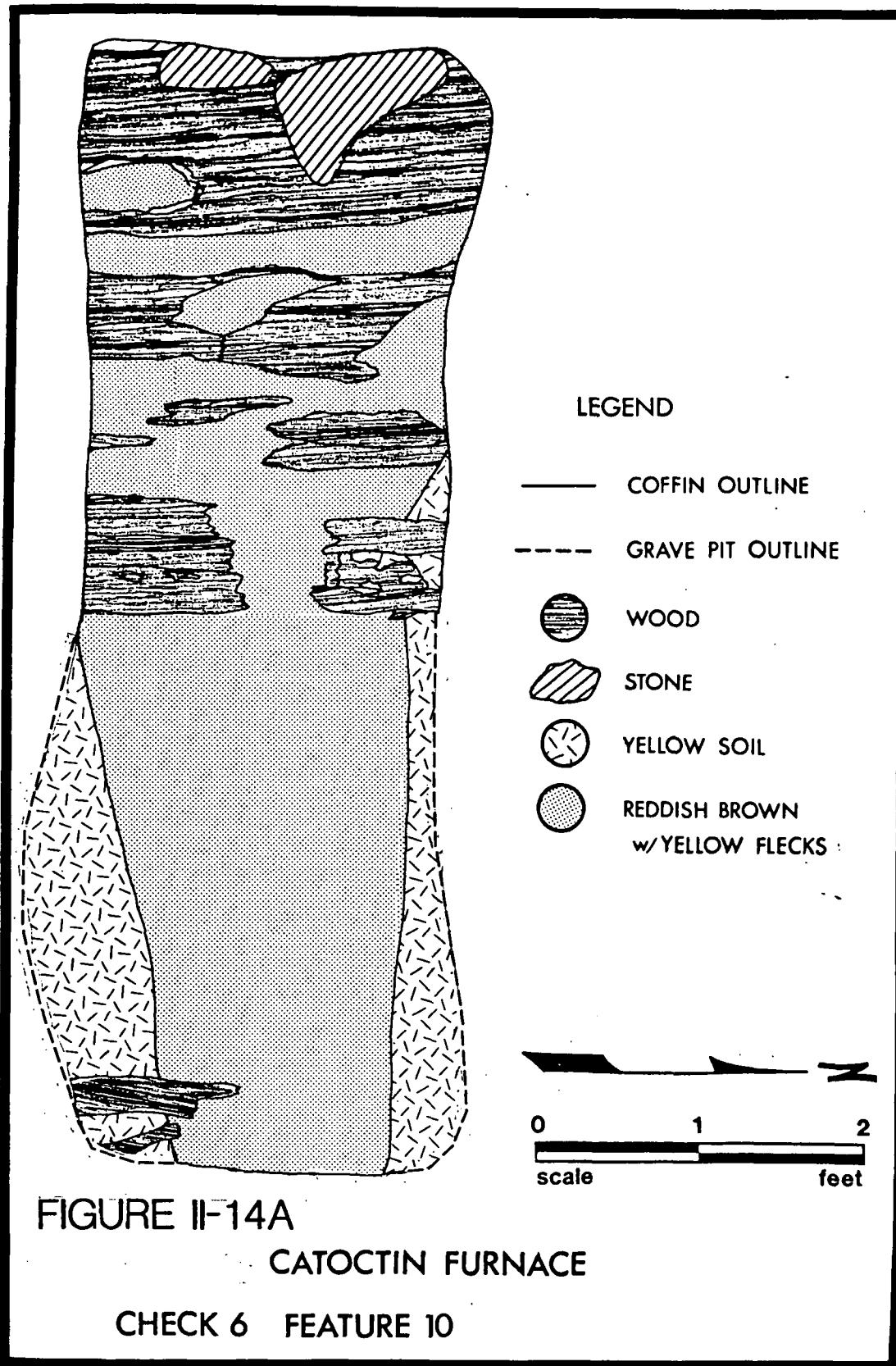
The entire coffin lid was found in a fair state of preservation. It was constructed of wood slats laid at right angles to the long axis of the coffin. The coffin appears to have been of a straight-sided "pinch-toe" shape.

The entire coffin lid tilted generally southward. In addition, there was some collapsing inward over the pelvis.

The buttons, congregated in the pelvic/wrist area, indicate clothing, but of undetermined kind. There was some slight erosion on the frontal region of the cranium, suggesting pathology.

Note proximity of Features 10 and 11 (.75' between them).

\* Dr. Angel's preliminary analysis identifies this sketeton as female, 24-30 yrs. (see Appendix 2.) It is hoped that further analysis by Dr. Angel will resolve this discrepancy.



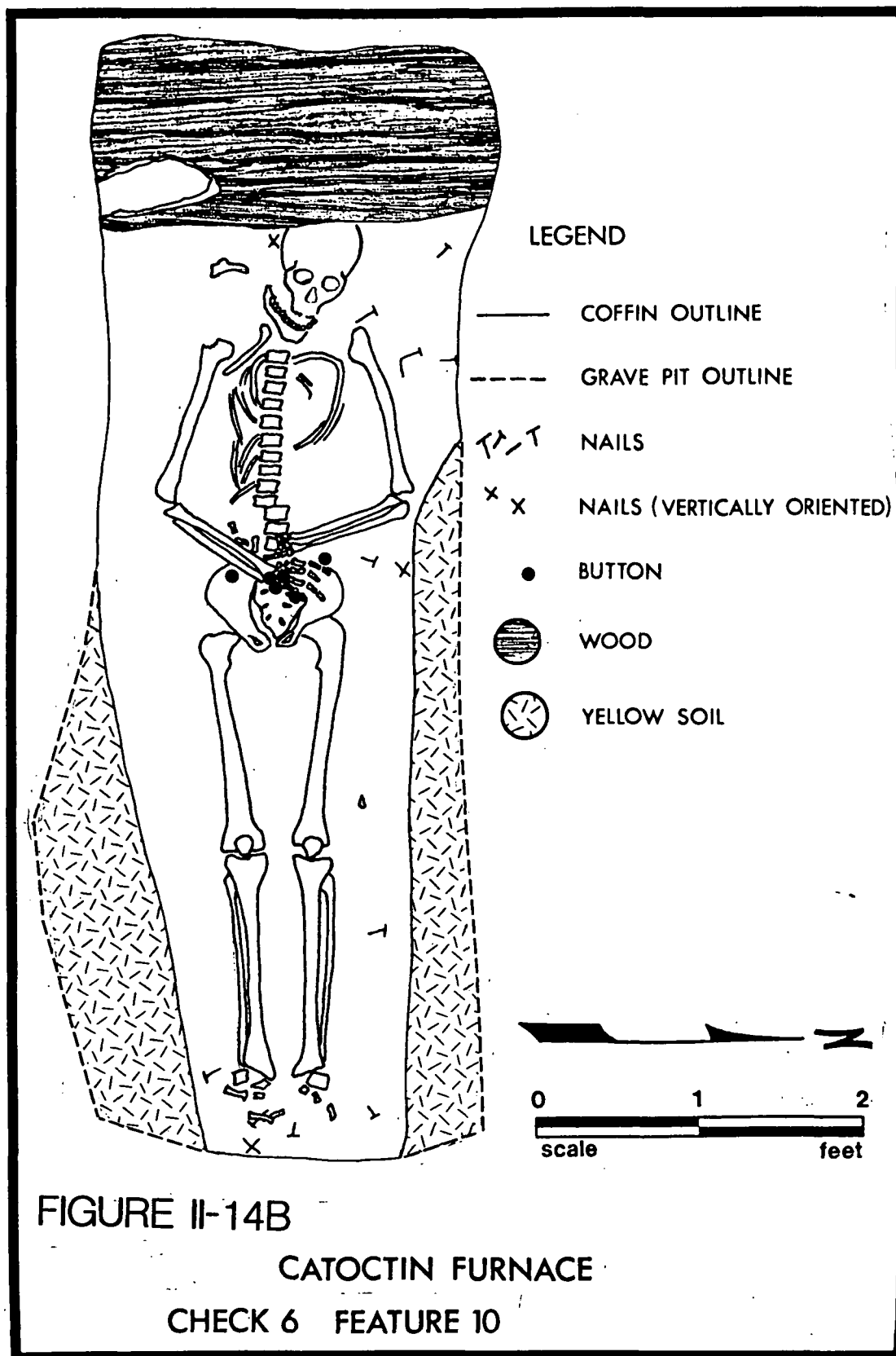






PLATE II-13 FEATURE 10





PLATE II-14,A    FEATURE 10



PLATE II-14, B      FEATURE 10

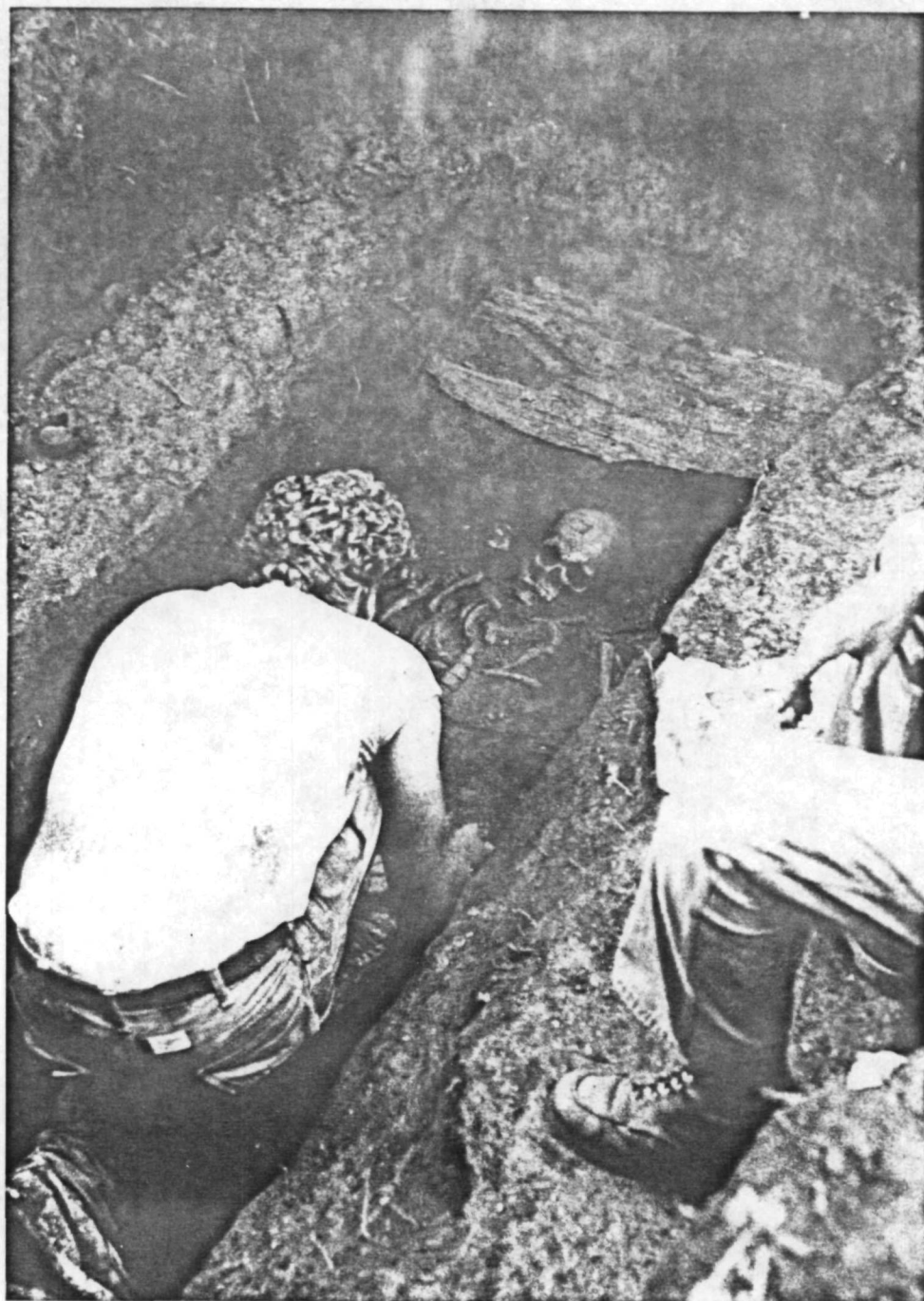


PLATE II-14,C FEATURE 10

Feature No. 11: North 45-50/East 95-105

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : 1.8' below surface

First appearance of coffin: 4.3' below surface

Dimensions of coffin : 6.85' east-west x 2.0' north-south

Dimensions of burial : 5.4' east-west x 1.4' north-south

Depth of top of cranium : 4.55' below surface

Depth of top of pelvis : 4.85' below surface

Depth of lowest point : 5.25' below surface  
located: center of area just east of feet

Age, sex and condition : This burial was a young adult, probably female.  
The bones were in good to excellent condition. \*

Artifacts: 4 hand wrought nails (treated)  
35 machine cut, hand headed nails (28 treated, 7 not treated)  
3 pins, cuprous

Date Range: 1790 - 1820

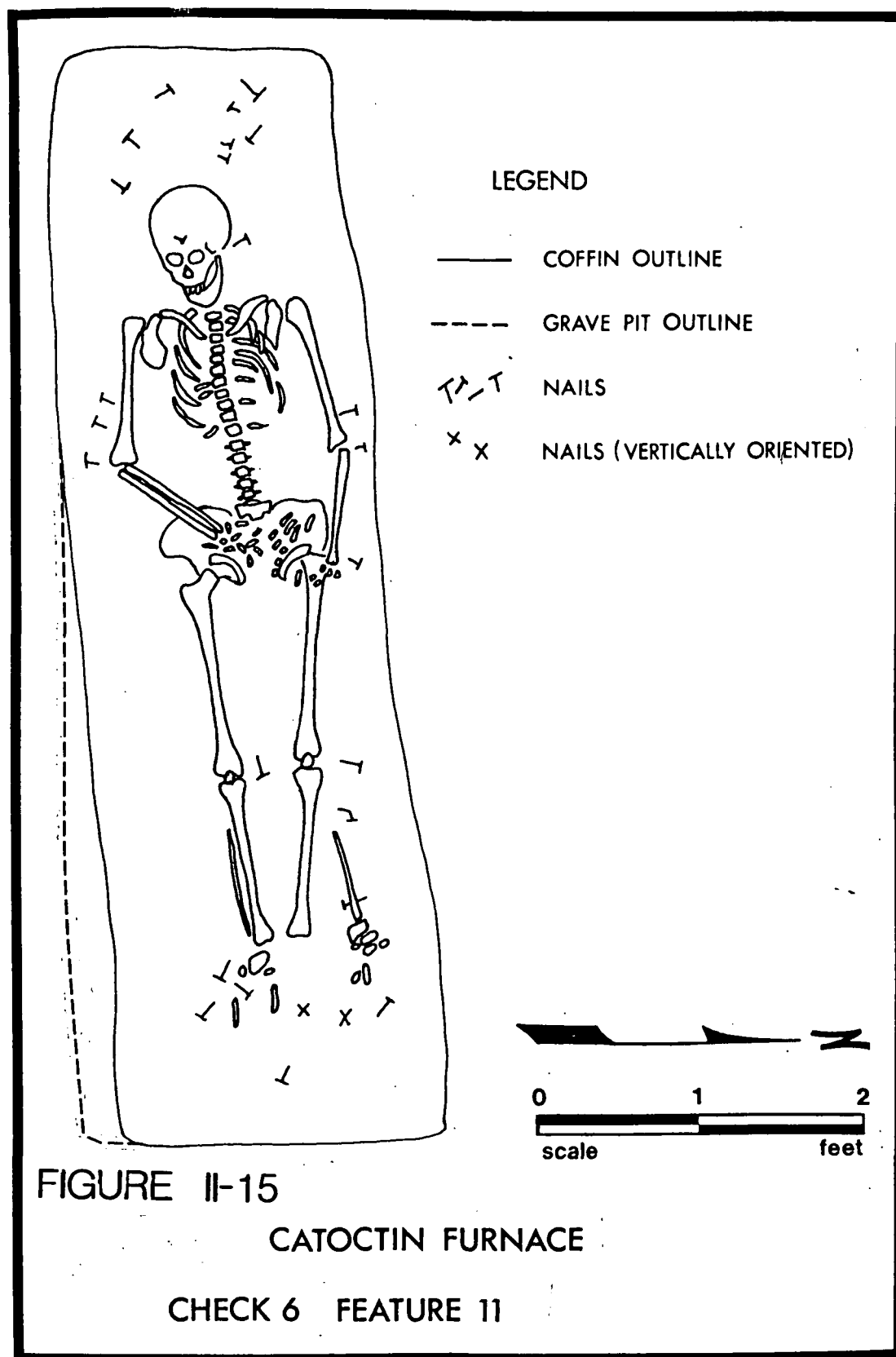
Discussion

The coffin was probably of shouldered pinch-toe form and was constructed of both hand wrought and machine cut nails. Three cuprous pins were found: one  $\pm$ .2' west of cranium, one under mandible and one just west of left ilium. The pins suggest burial in a shroud. Under cranium was found a shovel-mark, made by a flat-bladed shovel with a .5' wide blade.

Evidence of pathology include possible arthritic lipping on patellae and proximal tibia. This individual also had an assortment of severe dental problems.

Note proximity of Features 10 and 11 (.75' between them) and proximity of Features 11 and 13 ( $\pm$  1.0' between them).

- \* Dr. Angel's preliminary analysis identifies this skeleton as female, 35-47 yrs. (see Appendix 2). It is hoped that further analysis by Dr. Angel will resolve this discrepancy.





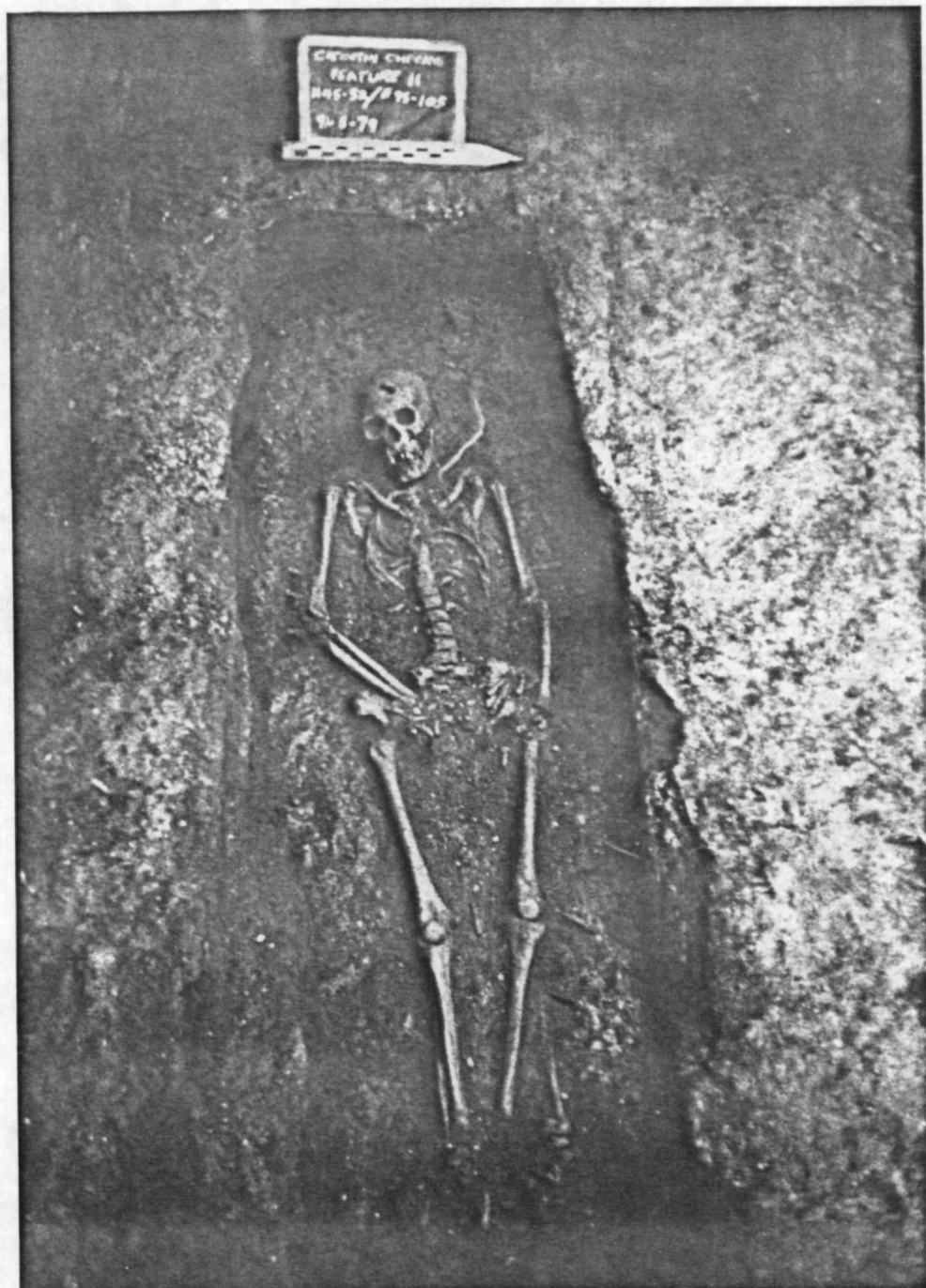


PLATE II-15 FEATURE 11

Feature No. 12: North 40-45/East 95-105

Gravestone markers: Headstone: unnumbered stone  
Footstone: unnumbered stone

First appearance of grave : 1.3' below surface

First appearance of coffin: 3.9' below surface

Dimensions of coffin : 3.4' east-west x 1.0' north-south

Dimensions of burial : 3.1' east-west x .95' north-south

Depth of top of cranium : 3.9' below surface

Depth of top of pelvis : 4.2' below surface

Depth of lowest point : 4.4' below surface  
located: between tibiae

Age, sex and condition : This was a burial of a child less than 6 years old; the sex could not be determined. The bones are in a pretty good state of preservation, considering the immaturity of the skeleton. The vertebrae, most of the ribs, and the right humerus appeared as stains only.\*

Artifacts: 23 machine cut, machine headed nails (13 washed, 10 not washed)  
5 screws, blunt point (washed)  
1 shroud pin, cuprous  
3 soil samples (cranial, thoracic, pelvic)

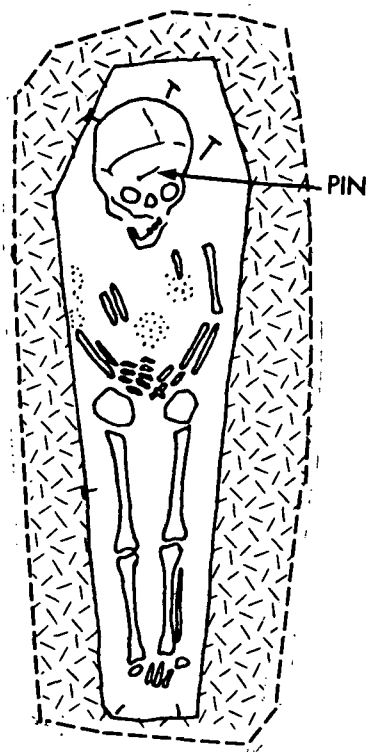
Date Range: 1830 - 1843

#### Discussion

The coffin outline in this burial was very distinct. It was of shouldered, pinch toe form. The coffin nails were tiny, like finishing nails. Of the traces of cuprous shroud pins that were seen, the only one retrievable came from on top of the cranium.

Note proximity to Feature 13 (.75' between them).

\* Dr. Angel's preliminary analysis identifies this skeleton as possibly a male, about 3 yrs. of age or less. It is hoped that further analysis by Dr. Angel will resolve this discrepancy.



# LEGEND

- COFFIN OUTLINE
- GRAVE PIT OUTLINE
- T T T NAILS
- TRACES of BONE
- ⊗ YELLOW SOIL

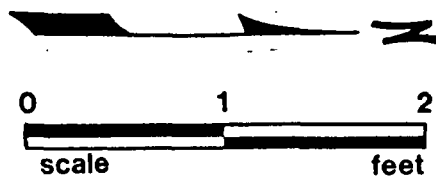


FIGURE II-16

CATOCTIN FURNACE

CHECK 6 FEATURE 12





PLATE II-16 FEATURE 12

Feature No. 13: North 45-50/East 95-105

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : 1.3' below surface

First appearance of coffin: 4.2' below surface

Dimensions of coffin : east-west indeterminate (obscured at east end)  
x 1.8' north-south

Dimensions of burial : 4.8' east-west x 1.3' north-south

Depth of top of cranium : 4.15' below surface

Depth of top of pelvis : 4.6' below surface

Depth of lowest point : 5.0' below surface  
located: east of feet

Age, sex and condition : This was the burial of a juvenile (+ 12) female,  
whose bones were in good to excellent condition.  
The state of preservation of the facial bones  
was noteworthy. \*

Artifacts: 49 machine cut, machine head - L headed nails (45 treated  
4 not treated)  
2 machine cut, hand headed nails  
3 screws - round headed, blunt point  
2 buttons (shell, 1.1 cm diameter, flat, 4 hole  
Ref. Hume 1970, p. 91 type 22)  
1 slag fragment  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1790 - 1820

Discussion

Part of Feature 13's north edge was destroyed during excavation of Feature 11. The visible coffin outlines suggest a coffin of shouldered pinch toe form. The two buttons found in the wrist/pelvis region indicate clothing of undetermined kind.

Note proximity of Feature 13 to Features 11 and 12, cited under discussion of Features 11 and 12.

- \* Dr. Angel's preliminary analysis identifies this skeleton as probably male, 12-13 yrs. (see Appendix 2). It is hoped that further analysis by Dr. Angel will resolve this discrepancy.



# LEGEND

- COFFIN OUTLINE
- GRAVE PIT OUTLINE
- T-T NAILS
- BUTTON

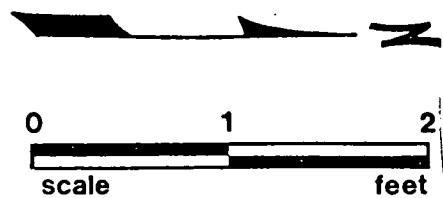


FIGURE II-17

CATOCTIN FURNACE

CHECK 6 FEATURE 13



PLATE II-17 FEATURE 13



PLATE II-18 FEATURE 13

Feature No. 14: North 55-65/East 135-145

Gravestone markers: Headstone # 50  
Footstone # 46

First appearance of grave : 1.8' below surface

First appearance of coffin: 4.3' below surface

Dimensions of coffin : 5.6' east-west x 2.0' north-south

Dimensions of burial : 4.9' east-west x 1.5' north-south

Depth of top of cranium : 4.3' below surface

Depth of top of pelvis : 4.4' below surface

Depth of lowest point : 4.46' below surface  
located: anterior of left femur

Age, sex and condition : The burial was an adult male, whose bones were in very poor condition. Most of the bones were disintegrated. Virtually all that survived were the lower limb bones, some upper limb bones and the cranium. There was much root disturbance and rodent disturbance, the worst of it on the south side of the burial. \*

Artifacts: 28 machine cut, machine headed nails (20 washed, 8 not washed)  
2 screws, blunt point  
soil and wood samples  
1 clear glass 20th century screw  
top, embossed bottle  
1 bag of rodent skull fragments

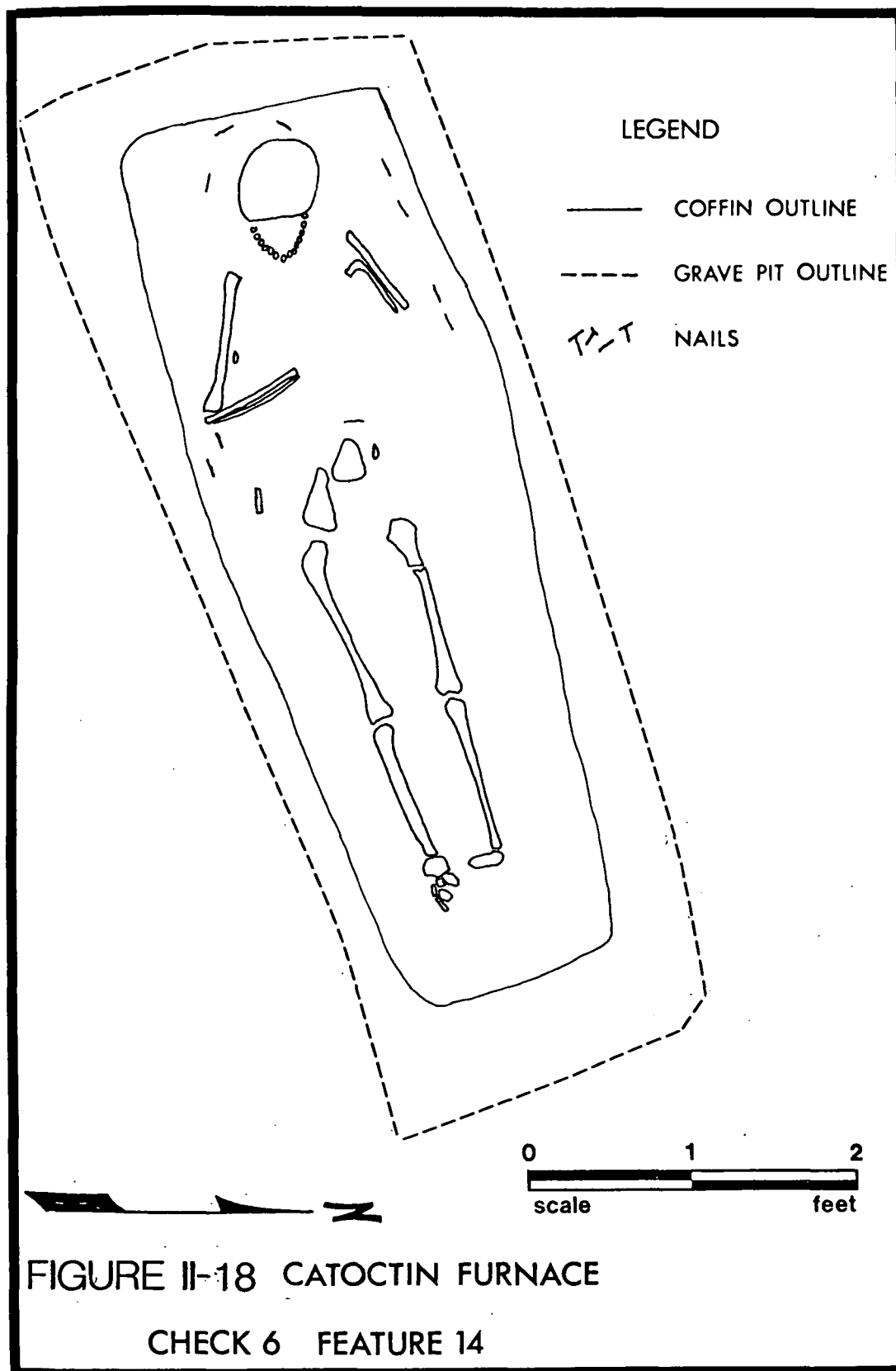
Date Range: 1820 - 1843

#### Discussion

The intrusive rodent hole on the south side of the burial was the provenience of the 20th century glass jar and the rodent skull fragments. The coffin outline suggests a shouldered pinch toe form. There was no evidence of clothing or shroud. Traces of pathology included dental problems. Note alignment of this grave is not quite in keeping with the pattern of the alignments of the other graves, it lies on an axis somewhat inclined toward the SW-NE

\* Dr. Angel's preliminary analysis identifies this skeleton as female, 45-60 yrs. (see Appendix 2). It is hoped that further analysis by Dr. Angel will resolve this discrepancy.





Feature No. 15: North 60-65/East 95-105

Gravestone markers: Headstone # 91  
Footstone: none

First appearance of grave : 2.1' below surface

First appearance of coffin: 5.1' below surface

Dimensions of coffin : 5.8' east-west x 1.7' north-south

Dimensions of burial : 5.5' east-west x 1.6' north-south

Depth of top of cranium : 5.6' below surface

Depth of top of pelvis : 6.0' below surface

Depth of lowest point : 6.25' below surface  
located: between femurs

Age, sex and condition : This was a burial of a male in late teens, whose bones are in poor condition. The ribs, some vertebrae, all bones of hands, pelvis, and some bones of feet were represented as masses of root-lets and bone dust only . \*

Artifacts: 51 hand wrought, rose headed nails (40 washed, 11 not washed)  
7 hand wrought, T headed nails (6 washed, 1 not washed)  
1 sample of wood fragments from top of coffin  
1 sample of seeds  
4 soil samples (1 cranial, 1 thoracic, 1 pelvic, 1 from area with seeds over tibial area of coffin)  
1 rhyolite flake

Date Range: 1790 - 1800

Discussion

The rhyolite flake was found in the fill above the coffin,  $\pm$  4.2' below surface. The coffin was apparently of shouldered pinch toe form. Over the coffin lid in the eastern half of the burial was a patch of seeds  $\pm$  1 foot north-south by  $\pm$  2 feet east-west, as if representing a funeral wreath. Similar seeds were seen lying on the nails of the bottom of the coffin, near the right occipital region.

There was no evidence of shroud or clothing. This was the deepest burial excavated in the 1979 season.

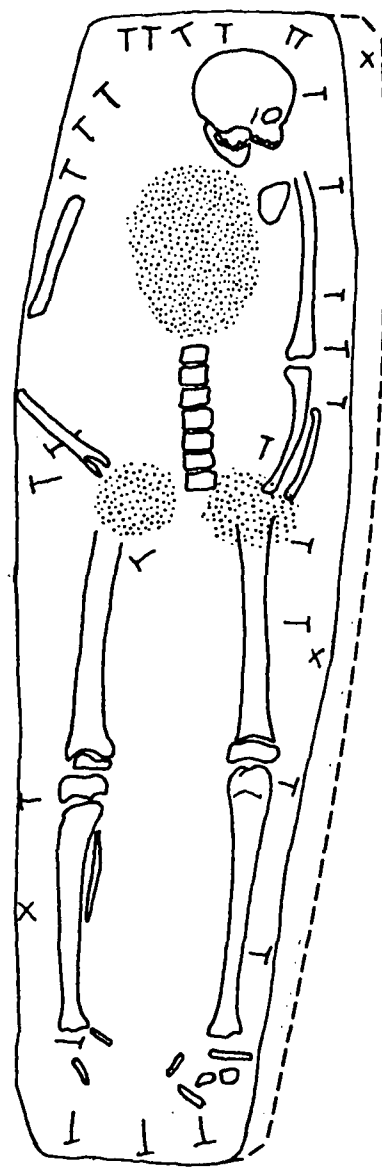
The lower limb bones were notably large and massive (see Feature 18 and 22).

Note proximity of Features 15, 16, 17, 19, and 20 (Features 15 and 19 have barely .2 feet separating them).

\*

Dr. Angel's preliminary analysis identifies this skeleton as a male, about 17 years old. (See Appendix 2). II-61





# LEGEND

- COFFIN OUTLINE
- - - GRAVE PIT OUTLINE
- T T NAILS
- X X NAILS (VERTICALLY ORIENTED)
- TRACES of BONE

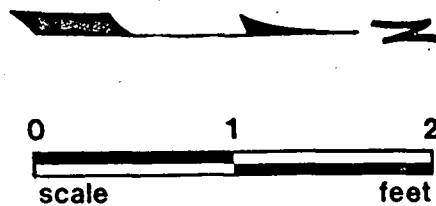


FIGURE II-19

CATOCTIN FURNACE

CHECK 6 FEATURE 15

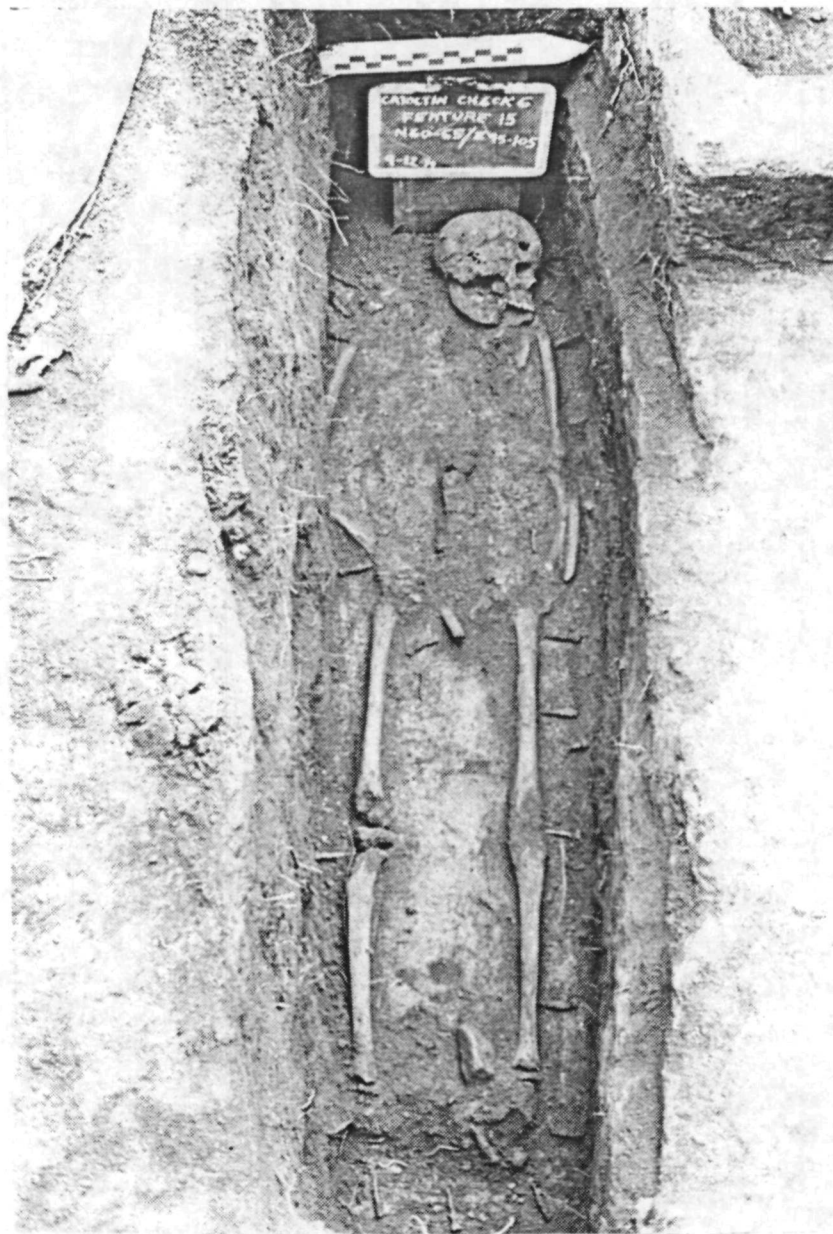


PLATE II-19    FEATURE 15

Feature No. 16: North 60-65/East 85-95

Gravestone markers: none (an unnumbered stone found 2.3' below surface and .6' east of east edge of grave pit is probably unassociated).

First appearance of grave : 1.25' below surface

First appearance of coffin: 3.3' below surface

Dimensions of coffin : indeterminate

Dimensions of grave pit : 3.7' east-west x 2.1' north-south

Dimensions of burial : 3.2' east-west x 1.3' north-south (approx.)

Depth of top of cranium : 4.3' below surface

Depth of top of pelvis : indeterminate

Depth of lowest point : 4.95' below surface  
located: approx. area left tibia

Age, sex and condition : This was a burial of a child, age and sex indeterminate, whose bones were in very poor condition. Feature 16 was disturbed all through it, probably by rodent activity (seeds and a peach pit were found in general area of skull). Only a few bone and cranial fragments could be retrieved. \*

Artifacts: 39 hand wrought, rose headed nails (30 treated, 9 not treated)  
5 hand wrought, T headed nails (treated)  
1 bag of wood samples  
1 sample of plant remains (rodent disturbance)  
3 soil samples (cranial, thoracic, pelvic)

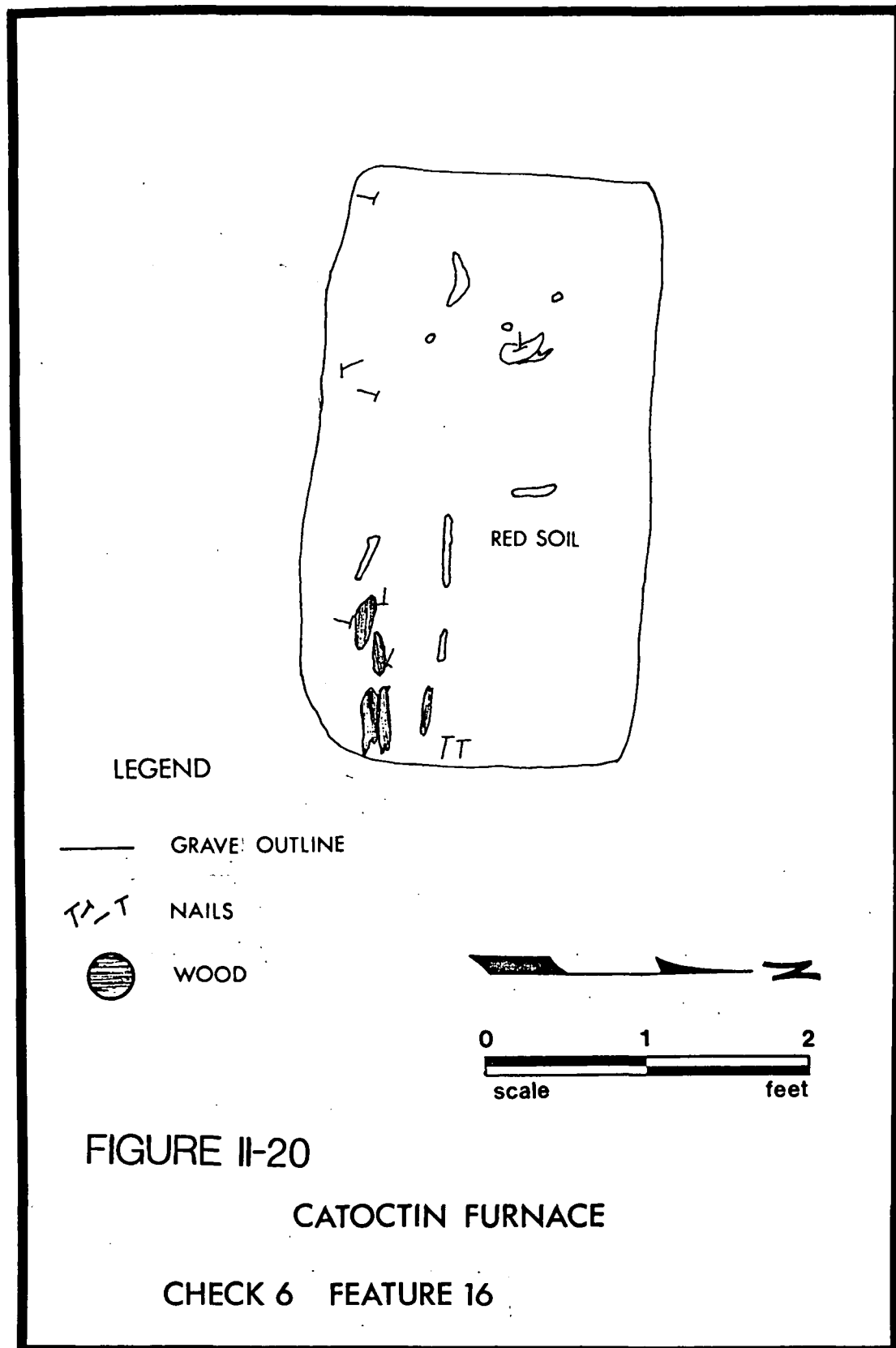
Date Range: 1790 - 1800

Discussion

Burial was in very poor condition. No evidence of clothing or shroud was seen. Wood fragments from the east end of the coffin were retrieved. Coffin shape could not be determined.

Note proximity of Features 15, 16, 17, 19, and 20.

\* In his preliminary analysis, Dr. Angel identifies this skeleton as possibly a male of about two years of age. (See Appendix 2).



Feature No. 17: North 55-65/East 90-100

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : Feature 17 was discovered when the left temporal was exposed in the south wall of the Feature 15 and 16 excavations.

First appearance of coffin:  $\pm$  3.7' below surface

Dimensions of coffin : 3.8' east-west x 1.4' north-south

Dimensions of burial : 3.6' east-west x 1.0' north-south

Depth of top of cranium : 4.2' below surface

Depth of top of pelvis : 4.4' below surface

Depth of lowest point : 4.5' below surface  
located: between knees

Age, sex and condition : This was a child (+6); sex indeterminate. The bones were in fair condition. Virtually all bones were present, but some (eg.femur) could not be lifted without disintegrating. It was somewhat disturbed, the right arm and right dental area having been thrust upward about .3' above the level of the left.\*

Artifacts: 13 machine cut, machine headed nails from feature (4 washed, 9 not washed)  
15 machine cut, machine headed nails from sifter (4 washed, 11 not washed)  
6 hand wrought, rose headed nails from disturbed soil (4 washed, 2 not washed)  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1820 +

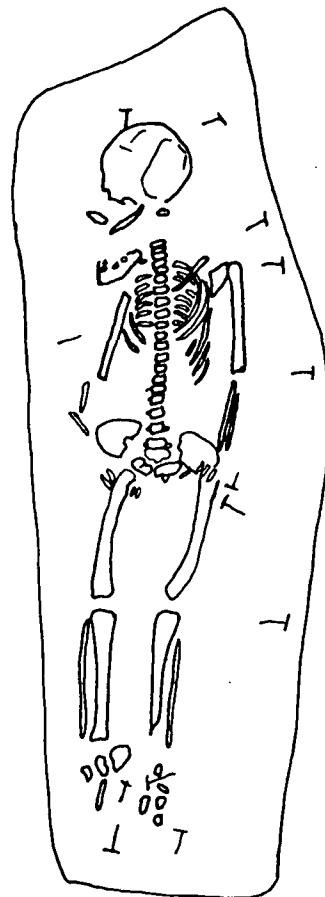
#### Discussion

The south edge of the Feature 17 grave pit had been cut into by the Feature 9 excavation, but the Feature 17 burial itself is believed to have been undisturbed by this. The coffin appears to have been of shouldered pinch toe form. The hand wrought, rose-headed nails from disturbed soil may not be associated with this feature.

No evidence was found for clothing or shroud.

Note proximity of Features 15, 16, 17, 19, and 20.

\* In his preliminary analysis, Dr. Angel identifies this skleton as possibly a male, of 5 years of age or more. (See Appendix 2).



# LEGEND

— GRAVE OUTLINE  
 T T NAILS

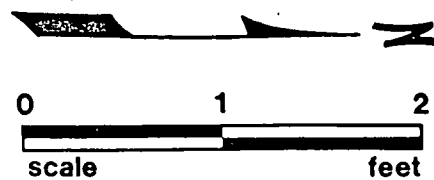


FIGURE II-21

CATOCTIN FURNACE

CHECK 6 FEATURE 17



PLATE II-20 FEATURE 17

Feature No. 18: North 65-70/East 95-105

Gravestone markers: Headstone # 98  
Footstone: none

First appearance of grave : 1.6' below surface

First appearance of coffin: 3.8' below surface

Dimensions of coffin : 6.0' east-west x 1.8' north-south

Dimensions of burial : 5.6' east-west x 1.5' north-south

Depth of top of cranium : 4.7' below surface

Depth of top of pelvis : 4.85' below surface

Depth of lowest point : 5.15' below surface  
located: between knees

Age, sex and condition : This burial was that of an adult (+ 20) female(?).  
The bones were in fair to poor condition. \*

Artifacts: 22 hand wrought, rose headed nails (18 treated, 4 not treated)  
1 container: 2 shroud pins and fibre sample from under cranium  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1790 - 1800

Discussion

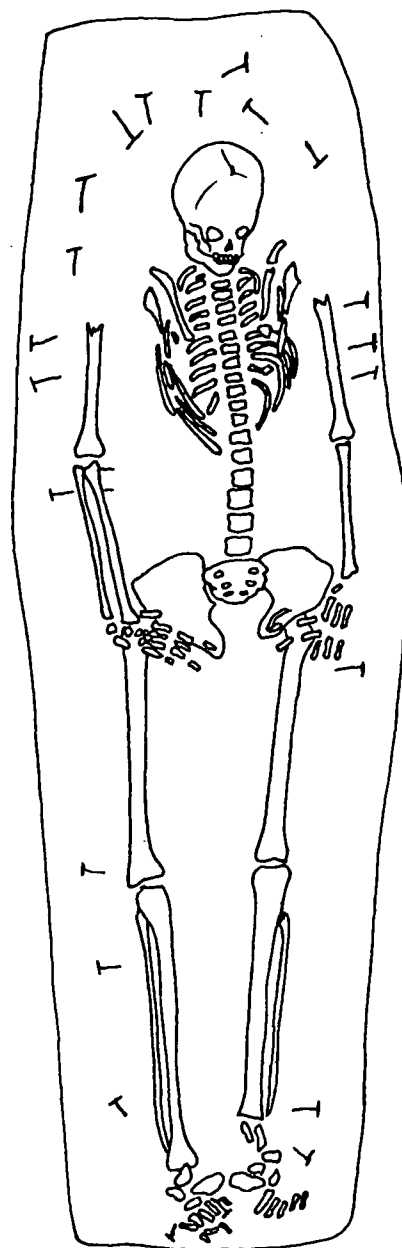
Two shroud pins (one from top of cranium and one from left temporal region) and fibre samples suggest presence of shroud. Lower limb bones seemed unusually large (see Features 15 and 22).

The coffin seems to have been of shouldered pinch toe form.

\*

Dr. Angel's preliminary analysis identifies this skelton as a female of 21 to 23 years of age. (See Appendix 2).





# LEGEND

— GRAVE OUTLINE

T T T NAILS

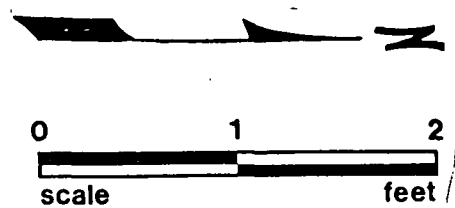


FIGURE II-22

CATOCTIN FURNACE

CHECK 6 FEATURE 18

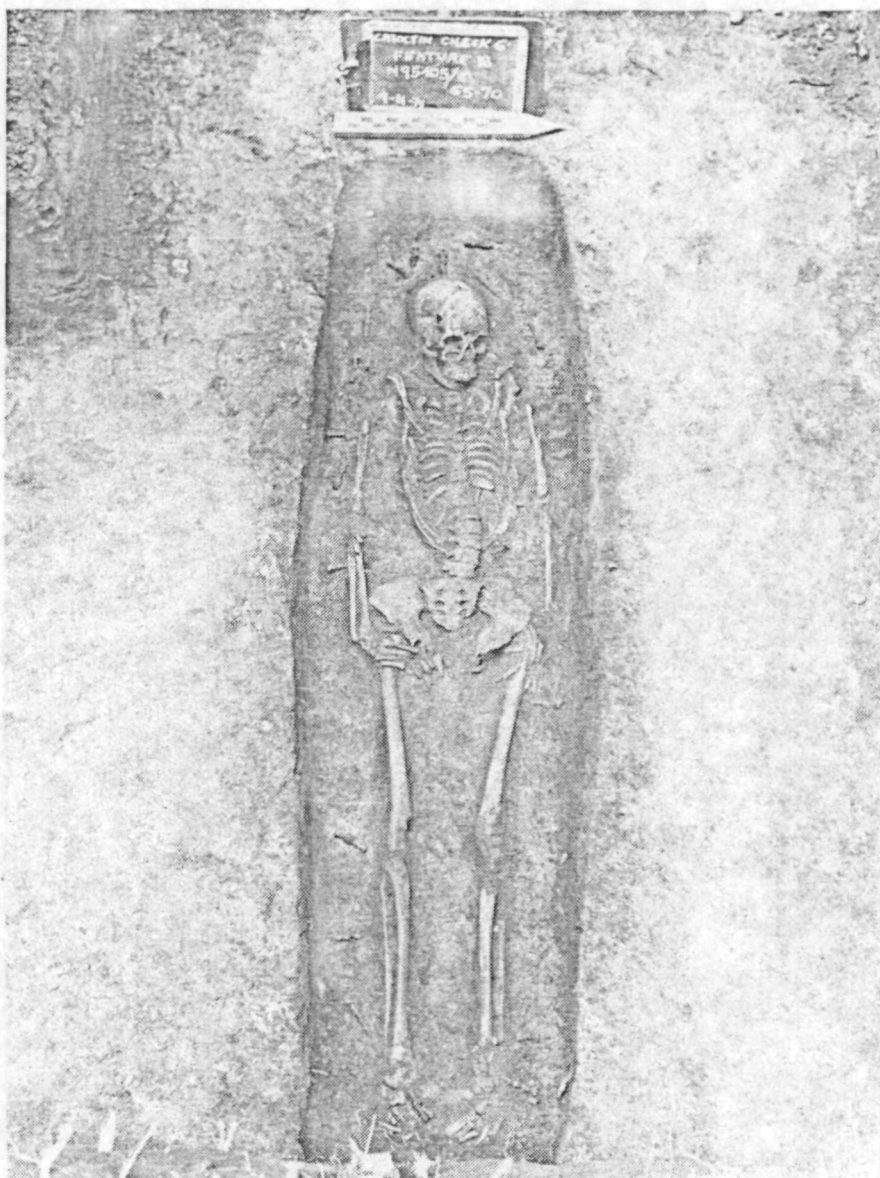


PLATE II-21 FEATURE 18

Feature No. 19: North 60-70/East 90-100

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : 3.0' below surface

First appearance of coffin:  $\pm$  3.2' below surface

Dimensions of coffin : 3.7' east-west x 1.0' north-south

Dimensions of burial : 2.7' east-west x .6' north-south

Depth of top of cranium : 3.6' below surface

Depth of top of pelvis : 3.85' below surface

Depth of lowest point : 3.9' below surface  
located: between femurs (pubic symphysis region)

Age, sex and condition : This is a burial of a child ( $\pm$  3 years of age), sex indeterminate. The bones are in fair condition considering its immaturity, but its pedal bones are missing and the skull is crushed. \*

Artifacts: 43 machine cut, machine headed nails (32 washed, 11 not washed)

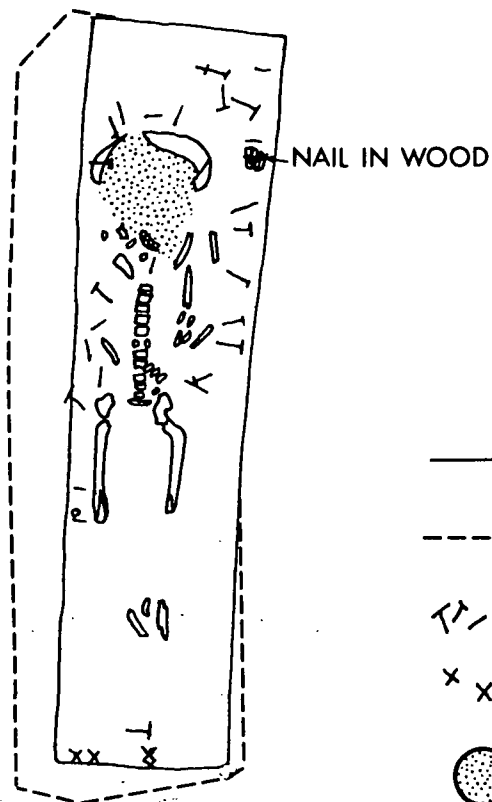
Date Range: 1820 +

Discussion

No evidence of clothing or shroud was found. Coffin outline indicates a coffin of straight sided pinch toe form

Note proximity of Features 15, 16, 17, 19, and 20 (Features 15 and 19 have barely .2' separating them).

\* In his preliminary analysis, Dr. Angel identified this skeleton as possibly a female of two years of age or older. (See Appendix 2).



# LEGEND

- COFFIN OUTLINE
- GRAVE PIT OUTLINE
- T T NAILS
- X X NAILS (VERTICALLY ORIENTED)
- TRACES of BONE

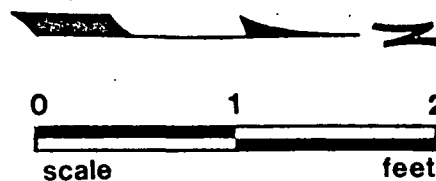


FIGURE II-23 CATOCTIN FURNACE

CHECK 6 FEATURE 19



PLATE II-22 FEATURE 19

Feature No. 20: North 55-60/East 90-100

Gravestone markers: Headstone: unnumbered stone  
Footstone # 95

First appearance of grave : 2.3' below surface

First appearance of coffin: 2.5' below surface

Dimensions of coffin : 2.2' east-west x 1.1' north-south

Dimensions of burial : indeterminate

Depth of top of cranium : 2.8' below surface

Depth of top of pelvis : indeterminate

Depth of lowest point : 2.85' below surface  
located: low point of cranium

Age, sex and condition : This is a burial of a fetus (approximately 6 to 7 months). All that survived is some cranial fragments and some long bone fragments (i.e. one diaphysis end, probably proximal humerus, some fragments of left parietal and the outer margin of the left orbit). The sex cannot be determined. \*

Artifacts: 16 machine cut, machine headed nails (6 washed, 10 not washed)  
2 machine cut, hand headed nails (1 washed, 1 not washed)  
1 shroud pin, cuprous  
2 soil samples (cranial, post-cranial)

Date Range: 1790 - 1820

Discussion

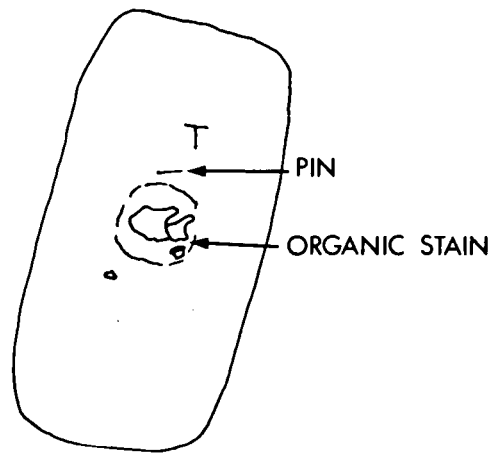
The area of the skull was indicated by a dark organic stain, which was drawn. One cuprous pin found along the western edge of this stain suggests the use of a shroud. Coffin shape could not be determined.

This and Feature 21 were the shallowest burials excavated in the 1979 season.

Note proximity of Features 15, 16, 17, 19, and 20, as well as proximity of Features 9 and 20. The east edge of Feature 20 was  $\pm$  .5 feet from the west edge of Feature 9, and the north edge of Feature 20 was less than 1 foot south of the south edge of Feature 17.

\*

In his preliminary analysis, Dr. Angel identified this burial as a fetus.



# LEGEND

—— GRAVE OUTLINE

T, T NAILS

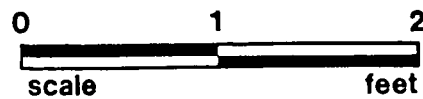


FIGURE II-24 CATOCTIN FURNACE

CHECK 6 FEATURE 20

Feature No. 21: North 55-65/East 80-90

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : Feature 21 was discovered in profile when trench wall along N. 60 grid line between East 80 and East 90 was cleaned during exposure of Feature 17.

First appearance of coffin: 2.5' below surface

Dimensions of coffin :  $\pm$  2.7' east-west x indeterminat north-south

Dimensions of burial : indeterminate

Depth of top of cranium : 2.9' below surface (estimated)

Depth of top of pelvis : indeterminate

Depth of lowest point : 2.93' below surface  
located: easternmost bone fragment

Age, sex and condition : This was a burial of an infant or fetus whose sex is indeterminate. There was nothing left of it, except for a few fragments of cranial bone, a cranial area stain and some post-cranial fragments. \*

Artifacts: 1 hand wrought, rose headed nail (washed)  
1 soil sample (cranial)  
1 sample of flower seeds from west of cranial area

Date Range: 1790 - 1800

Discussion

The burial was probably originally on a somewhat NW - SE axis, but was partially cut into by the excavation trench before its presence was discovered. There was a lot of root disturbance. A mass of rootlets in a dark organic stain indicated the cranial area. The cranial area was ringed with small clusters of seeds, each cluster  $\pm$  .1' across, as if the infant had been buried with a coronet of a wreath of flowers. There was no evidence of clothing or shroud. Coffin shape could not be determined.

This and Feature 20 were the shallowest burials excavated in the 1979 season.

\* In his preliminary analysis, Dr. Angel was unable to determine the sex of this burial, but it was determined as possibly a human.



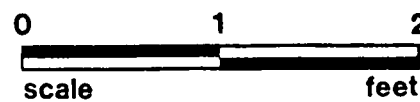
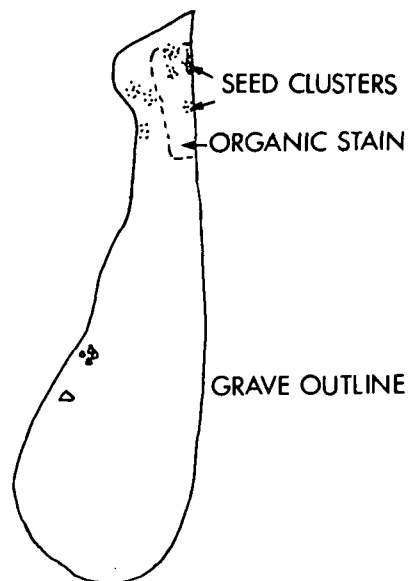


FIGURE II-25A

CATOCTIN FURNACE

CHECK 6 FEATURE 21

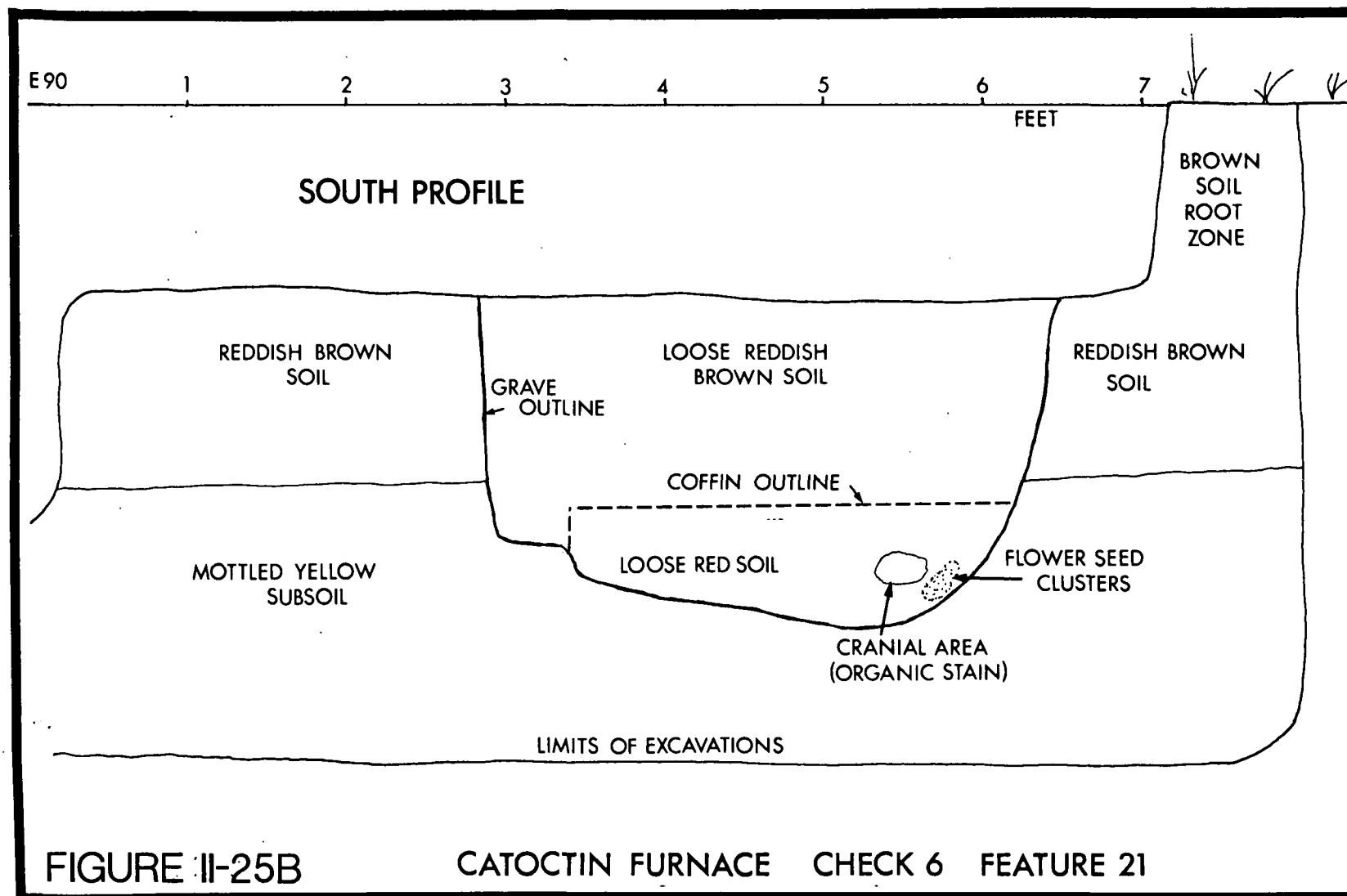




PLATE II-23    FEATURE 21

Feature No. 22: North 55-60/East 80-90

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : 3.25' below surface

First appearance of coffin: 3.8' below surface

Dimensions of coffin : 6.5' east-west x  $\pm$  1.6' north-south

Dimensions of burial : 5.6' east-west x 1.6' north-south

Depth of top of cranium : 3.85' below surface

Depth of top of pelvis : 4.0' below surface

Depth of lowest point : 4.3' below surface  
located: between knees

Age, sex and condition : This burial was that of an adult male with massive bones. Of the foot bones, tarsals and metatarsals were absent and only calcaneum and talus were present. The rest of the bones were there, but were intermingled with roots. \*

Artifacts: 28 hand wrought, rose headed nails (4 washed, 24 not washed)  
1 hand wrought, T headed nail (washed)  
1 quartz scraper  
4 soil samples (1 cranial, 1 thoracic, 1 pelvic, and 1 pollen sample from toe of coffin)  
1 seed sample from top of coffin, east end

Date Range: 1790 - 1800

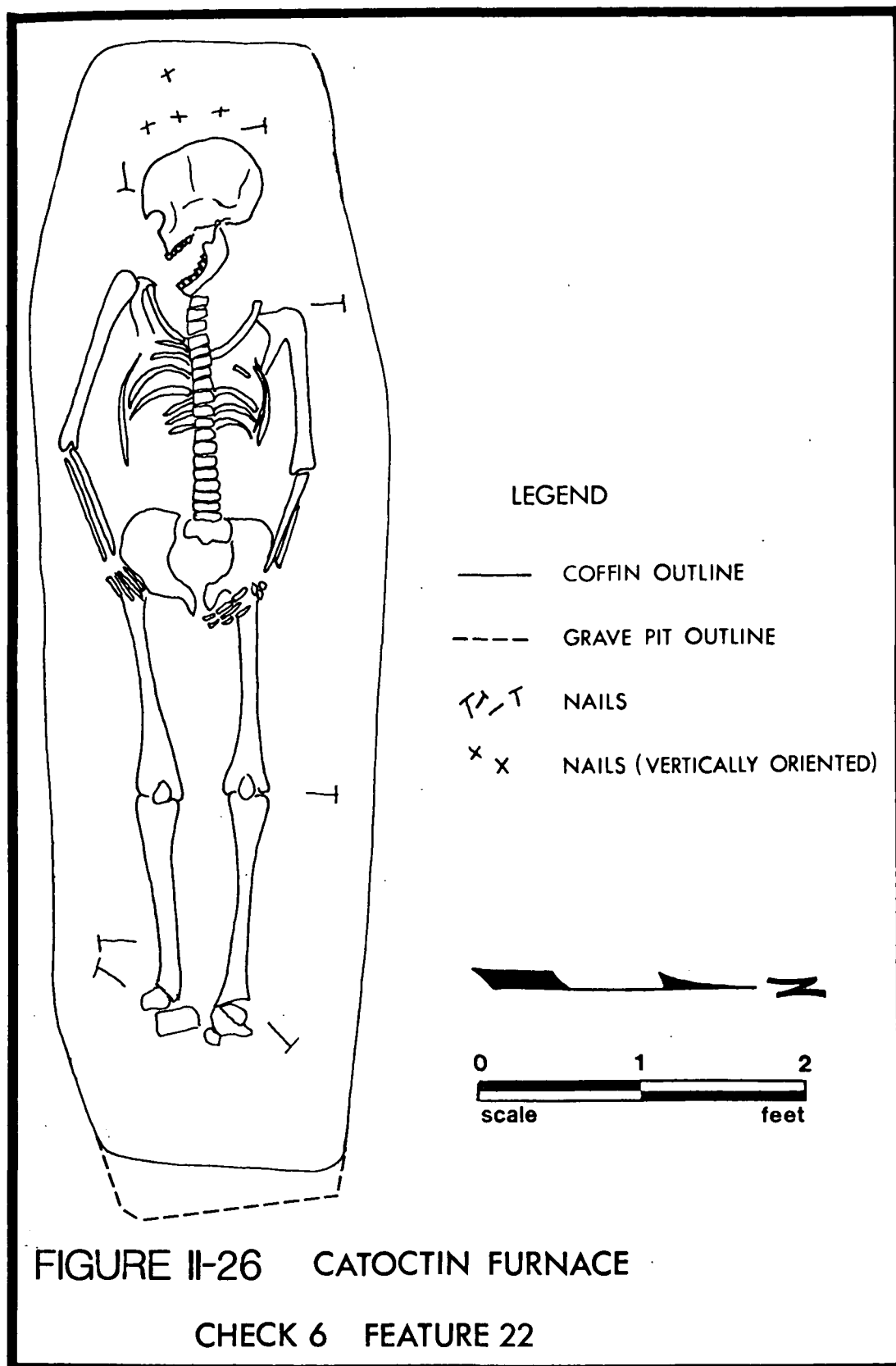
Discussion

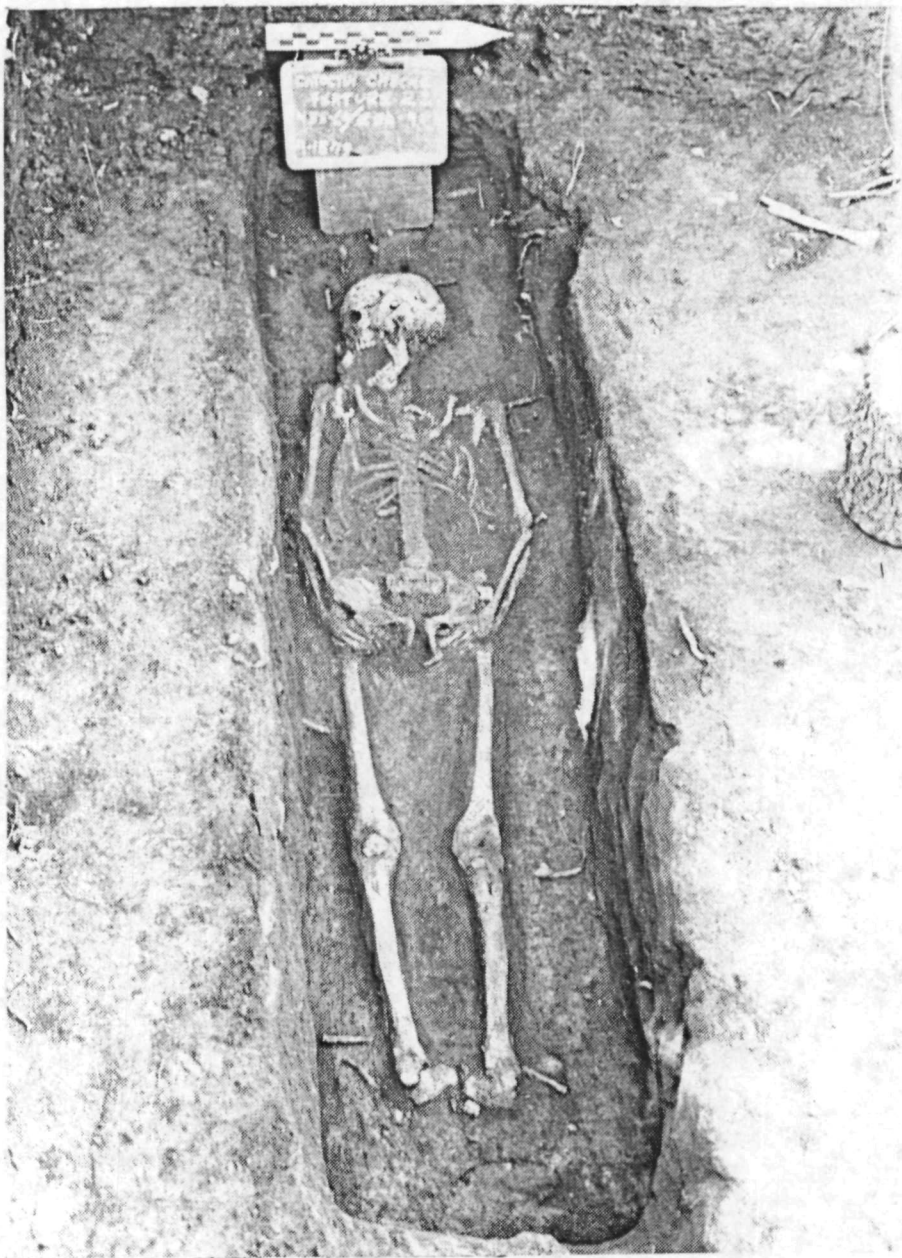
Coffin outline suggested a coffin of shouldered pinch toe form. There was an area of seed concentration, just above the top of the coffin in the NE corner of the feature, of which a sample was taken.

Note the robustness of this individual, especially of the lower limbs (see Features 15 and 18).

\*

Dr. Angel's preliminary analysis identifies this skeleton as male of 18 to 24 years of age. (See Appendix 2).





FEATURE 22

Feature No. 23: North 70-75/East 95-105

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave : 1.15' below surface

First appearance of coffin: 2.9' below surface

Dimensions of coffin : 5.7' east-west x 1.5' north-south

Dimensions of burial : 5.35' east-west x 1.1' north-south

Depth of top of cranium : 4.2' below surface

Depth of top of pelvis : 4.5' below surface

Depth of lowest point : 4.7' below surface  
located: between knees

Age, sex and condition : This was a burial of an adult female whose bones were in poor condition. Most of the vertebrae and ribs were missing, also most hand and foot bones. Some other bones were present only as masses of rootlets; the facial area was a mass of rootlets with only the teeth remaining. The long bones were fragmentary. \*

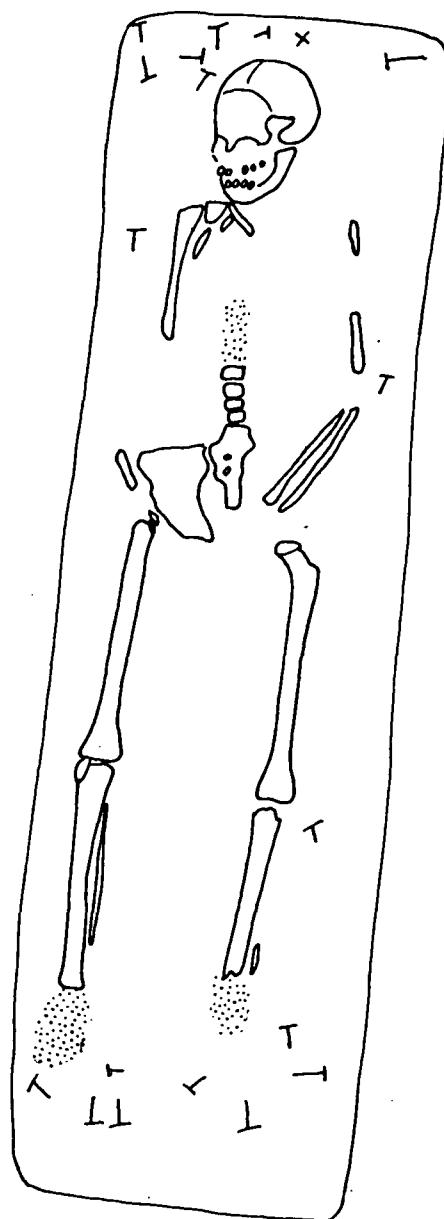
Artifacts: 30 hand wrought, rose headed nails (6 washed, 24 not washed)  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1790 - 1800

Discussion

No evidence was found of clothing or shroud. The coffin shape was uncertain, but may have been of rectangular form. If this is so, Feature 23 was the only feature of the 1979 season for which coffin shape could be determined of which the coffin was not of the shouldered or straight sided pinch-toe type.

\* In Dr. Angel's preliminary analysis, this skeleton was identified as female, of 20 to 30 years of age. (See Appendix 2).



# LEGEND

- GRAVE OUTLINE
- T T T NAILS
- x x NAILS (VERTICALLY ORIENTED)
- TRACES of BONE

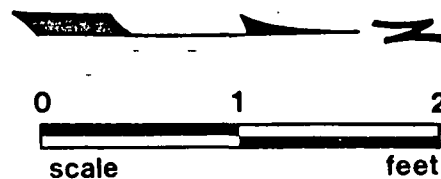


FIGURE II-27 CATOCTIN FURNACE

CHECK 6 FEATURE 23





PLATE II-25 FEATURE 23

Feature No. 24: North 65-70/East 105-115

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave :  $\pm$  1.3' below surface

First appearance of coffin:  $\pm$  3.5' below surface

Dimensions of coffin : 5.1' east-west x 1.65' north-south

Dimensions of burial : 4.3' east-west x 1.0' north-south

Depth of top of cranium : 4.1' below surface

Depth of top of pelvis : 4.65' below surface

Depth of lowest point : 4.69' below surface  
located: between ankles

Age, sex and condition : This is a burial of a juvenile (teenage), probably female. The bones are in pretty good condition, but with the metatarsals, phalanges and bones of right hand missing.\*

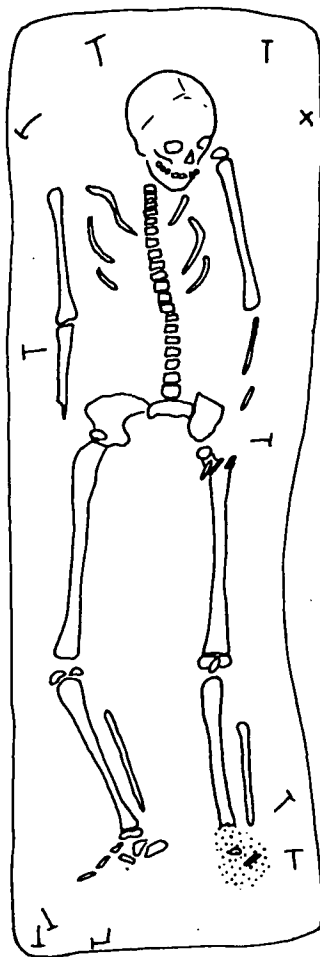
Artifacts: 14 hand wrought, rose headed nails (3 washed, 11 not washed)  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1790 - 1800

#### Discussion

There was no evidence of clothing or shroud. Coffin shape was undetermined.

\* Dr. Angel's preliminary analysis identifies this skeleton as probably male, 11-13 yrs. (see Appendix 2). It is hoped that further analysis by Dr. Angel will resolve this discrepancy.



# LEGEND

- GRAVE OUTLINE
- T T T NAILS
- x x NAILS (VERTICALLY ORIENTED)
- TRACES of BONE

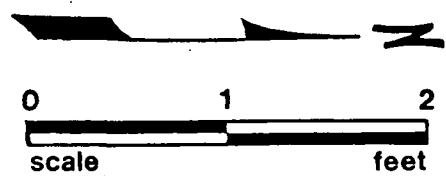


FIGURE II-28 CATOCTIN FURNACE  
CHECK 6 FEATURE 24



PLATE II-26 FEATURE 24



PLATE II-27      FEATURE 24

Feature No. 25: North 55-65/East 105-115

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave :  $\pm$  2.5' below surface

First appearance of coffin:  $\pm$  4.0' below surface

Dimensions of coffin  
(grave pit) :  $\pm$  3.6' east-west x 1.5' north-south

Dimensions of burial : indeterminate

Depth of top of cranium : indeterminate

Depth of top of pelvis : indeterminate

Depth of lowest point : indeterminate

Age, sex and condition : This was a burial of a child, probably, on the basis of the size of the coffin. All bones were absent except for one tiny fragment, probably of the cranial vault. \*

Artifacts: 17 hand wrought, rose headed nails (8 washed, 9 not washed)  
1 wood sample

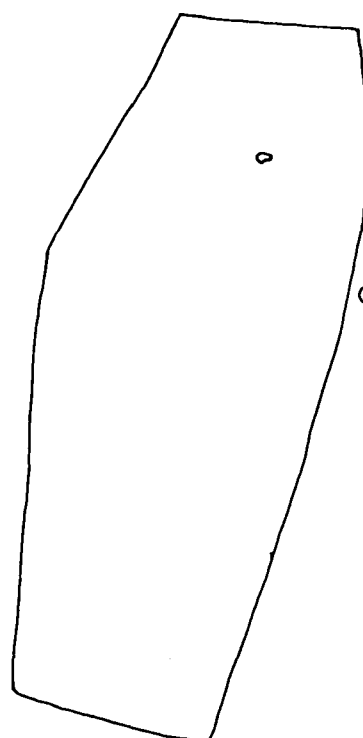
Date Range: 1790 - 1800

#### Discussion

This grave was virtually empty, but as there is no indication of any other explanation, one can only assume that the absence of the skeleton is due to lack of preservation conditions.

The coffin appears to have been of shouldered pinch toe form. There was no evidence of clothing or shroud.

\* In his preliminary analysis, Dr. Angel was unable to determine the age or sex of this skeleton. (See Appendix 2).



GRAVE OUTLINE

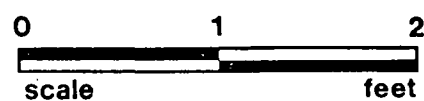


FIGURE II-29 CATOCTIN FURNACE

CHECK 6 FEATURE 25



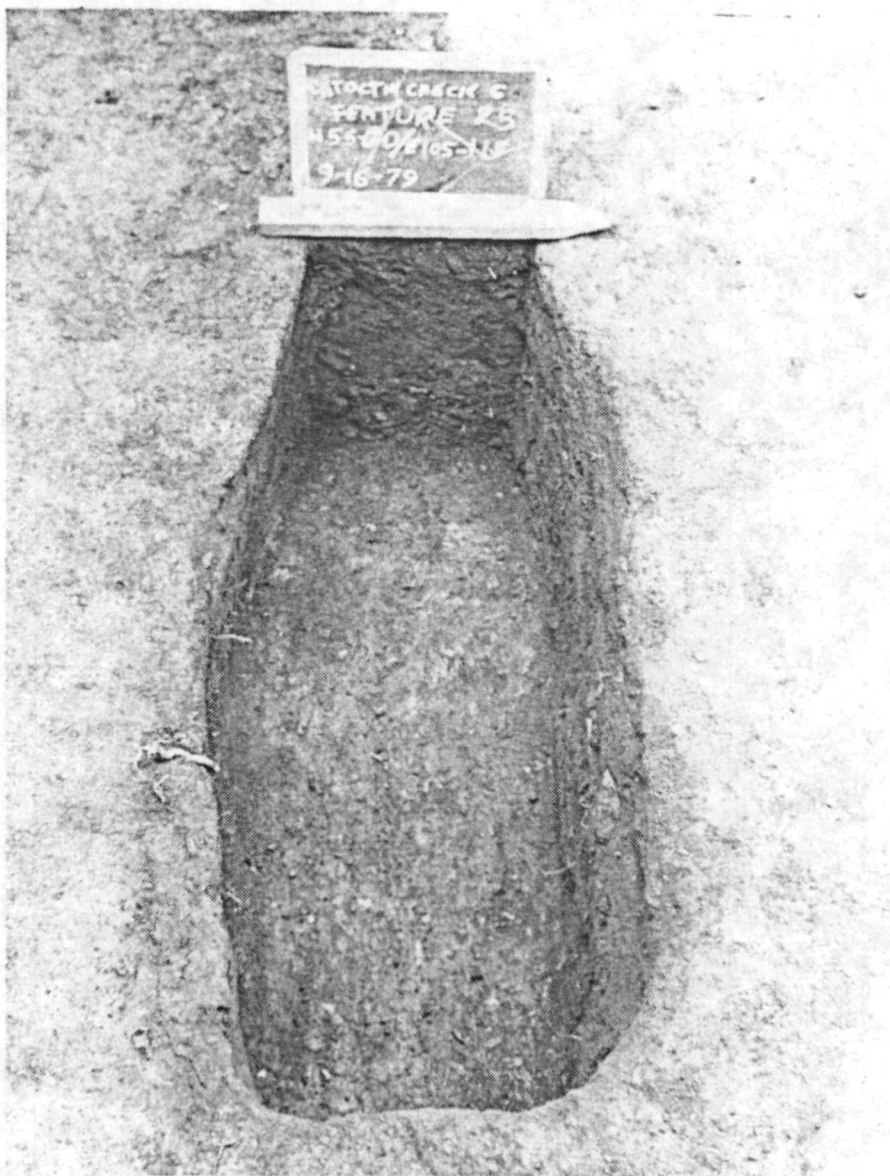


PLATE II-28 FEATURE 25



Feature No. 26: North 45-50/East 80-90

Gravestone markers: Headstone: none  
Footstone: none

First appearance of grave :  $\pm$  2.0' below surface

First appearance of coffin: undetermined

Dimensions of coffin : indeterminate due to tree roots east-west  
x 1.7' north-south

Dimensions of burial : 5.77' east-west x 1.45' north-south

Depth of top of cranium : 4.3' below surface

Depth of top of pelvis : 4.6' below surface

Depth of lowest point : 4.75' below surface  
located: between tibiae

Age, sex and condition : This was a burial of an elderly male. The condition of the bones was fair; most of the bones of the right hand were absent. The metatarsals and phalanges were under tree roots and were removed, even though they could not be drawn or photographed. \*

Artifacts: 31 machine cut, hand headed nails (6 washed, 25 not washed)  
1 peach pit  
3 soil samples (cranial, thoracic, pelvic)

Date Range: 1790 - 1810

Discussion

The tree roots obscured the east end of the coffin, but the entire skeleton was excavated. The coffin shape was undeterminable. There was no evidence of clothing or shroud.

\* In Dr. Angel's preliminary analysis, this skeleton was determined to be a male of 43 to 55 years of age. (See Appendix 2).

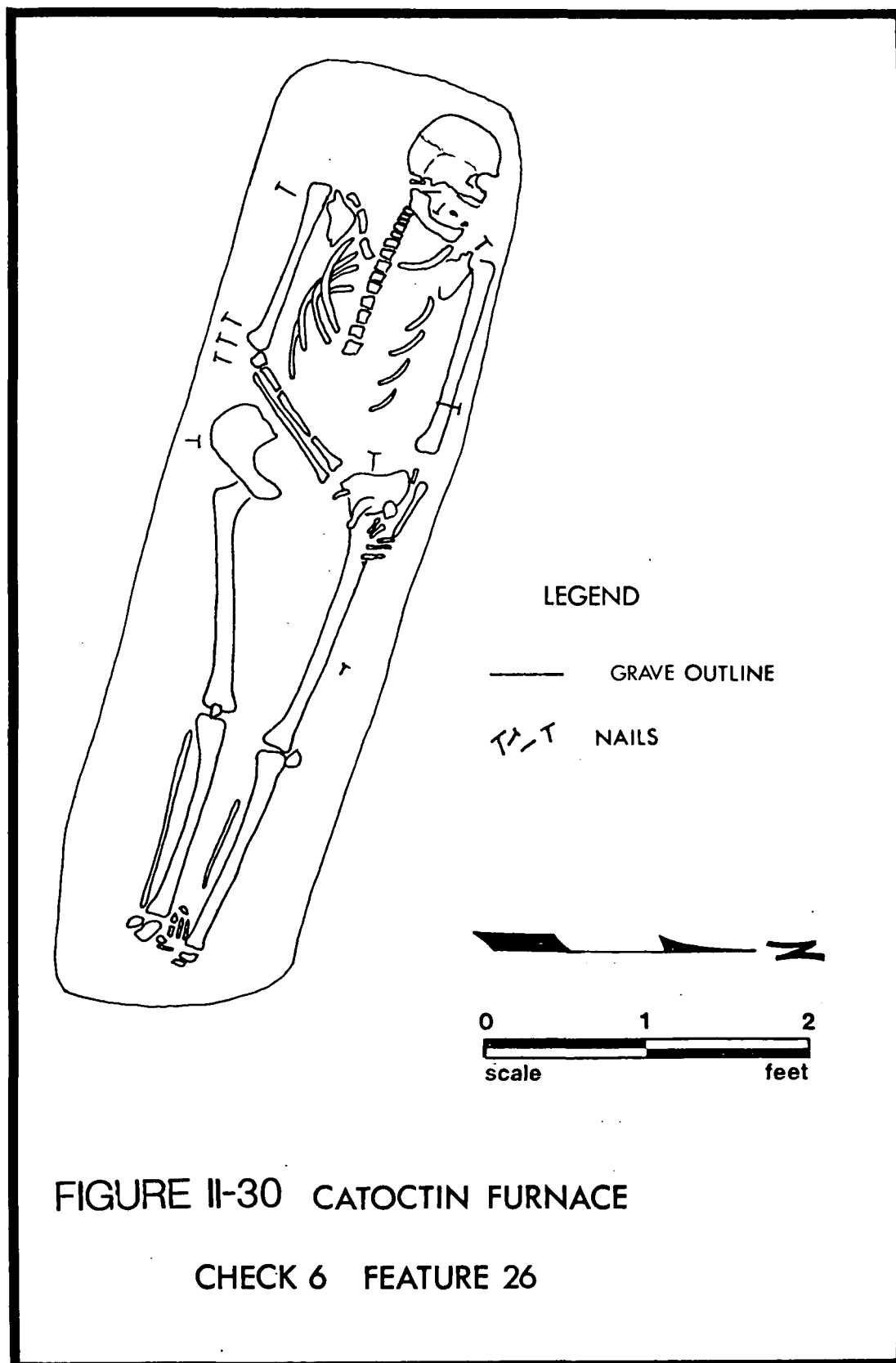




PLATE II-29 FEATURE 26

Feature No. 27: North 45-50/East 90-100

Gravestone markers: none

First appearance of grave : Feature 27 was a grave discovered after gradeall removal of the top  $\pm$  3.5' of soil.

First appearance of coffin : indeterminate

Dimensions of coffin : indeterminate

Dimensions of burial : indeterminate

Dimensions of grave : 1.0' east-west x .8' north-south

Depth of top of cranium : indeterminate

Depth of highest point : indeterminate

Depth of top of pelvis : indeterminate

Depth of lowest point : 3.46' below surface

Age, Sex and Condition : That this was the burial of an infant was determined by the size of the grave pit. The machinery had removed all but the bottom  $\pm$  .1' of the grave pit. No bone and no artifacts remained.

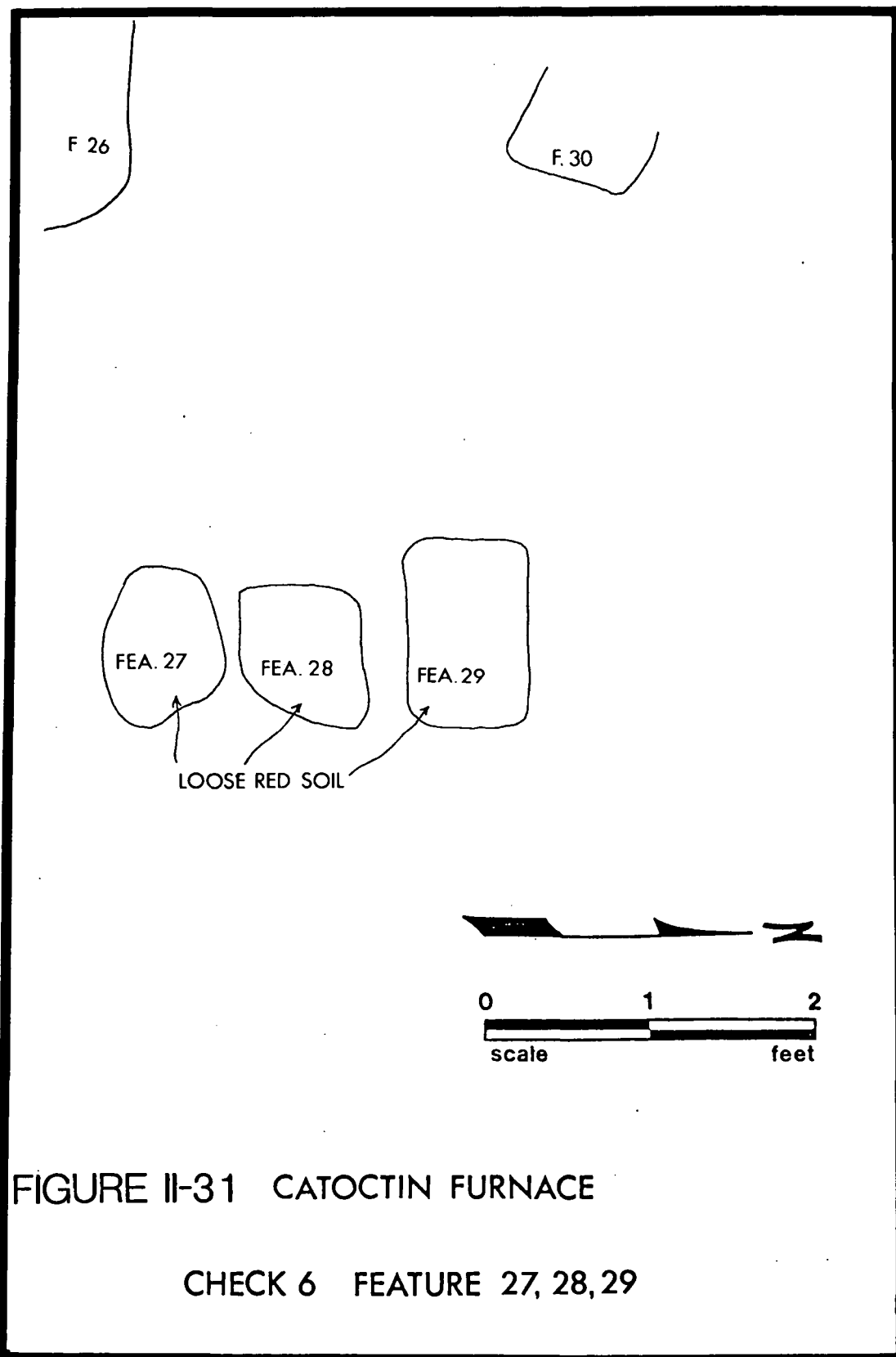
Artifacts: none

Date Range: indeterminate

#### Discussion

As already indicated, the gradeall excavations had removed all but the bottom  $\pm$  .1' of the grave pit of Feature 27, and only a soil stain remained, all bone and artifacts presumably having been removed by the machinery. Coffin shape (presuming a coffin to have been present) was indeterminate. There was likewise no evidence of clothing or shroud.

Note proximity of Features 27, 28 and 29 ( $\pm$  .2' between Features 27 and 28).



Feature No. 28: North 50-55/East 90-100

Gravestone markers: none

First appearance of grave : Feature 28 was found after gradeall removal of the top  $\pm$  3.5' of soil.

First appearance of coffin : 3.96' below surface

Dimensions of coffin : 1.5' east-west x 1.2' north-south

Dimensions of burial :  $\pm$  1.1' east-west x .5' north-south

Dimensions of grave : 1.8' east-west x 1.4' north-south

Depth of top of cranium : 4.36' below surface

Depth of top of pelvis : indeterminate

Depth of lowest point : 4.46' below surface (located in metacarpal region)

Age, sex and condiiton : This was an infanc  $\pm$  6 months old, sex indeterminate. It was in fair condition. The only surviving skeletal parts were mandible fragments, some cranial vault fragments, some rib fragments, and some (probably) left metacarpals.\*

Artifacts: 18 nails, machine-cut, machine-headed, L-headed (untreated)  
5 cuprous pins  
1 rhyolite flake  
2 soil samples (1 cranial, 1 postcranial)

Date Range: 1820+

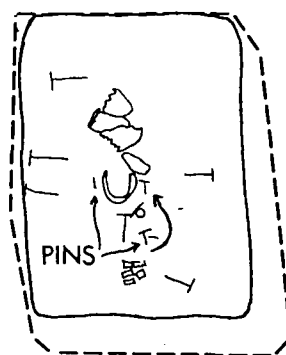
Discussion

The coffin shape was straight-sided and rectangular. The presence of pins indicates the use of a shroud. The rhyolite flake was found in the sifting-creen and came from the fill at the bottom of the grave pit, below coffin level. Presumably it was part of the fill and unassociated with the burial.

Note proximity of Features 27, 28 and 29 ( $\pm$  .2' separates Features 27 and 28 and  $\pm$  .3' separates Feature 28 and 29).

\*

In hia preliminary investigation, Dr. Angel was unable to determine the sex of this skeleton. It was identified as a newborn infant. (See Appendix 2).



# LEGEND

- COFFIN OUTLINE
- GRAVE PIT OUTLINE
- T-T NAILS

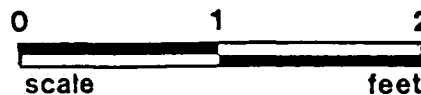


FIGURE II-32 CATOCTIN FURNACE

CHECK 6 FEATURE 28



PLATE II-30 FEATURE 28





PLATE II-31 FEATURE 28

Feature No. 29: North 50-55/East 90-100

Gravestone markers: none

First appearance of grave : Feature 29 was found after gradeall removal of  $\pm$  3.5' of topsoil.

First appearance of coffin : 3.96' below surface

Dimensions of coffin : 1.7' east-west x 1.1' north-south

Dimensions of burial : indeterminate

Dimensions of grave : 2.25' east-west x 1.5' north-south

Depth of top of cranium : 4.01' below surface

Depth of top of pelvis : indeterminate

Depth of lowest point : 4.11' below surface (located west of thoracic area)

Age, Sex and Condition : This was the grave of an infant, sex indeterminate. The bones were in extremely poor condition. Some cranial fragments and some rib fragments were all that survived. \*

Artifacts: 4 nails, machine-cut, machine-headed, T-headed (untreated)  
1 nail, machine-cut, no head (untreated)  
7 nails, machine-cut, machine-headed, L-headed (untreated)  
1 cuprous pin with fibre fragments  
2 soil samples (1 cranial, 1 postcranial)

Date Range: 1820+

Discussion

The infant was buried in a straight-sided rectangular coffin. The cuprous pin with fibre fragments, found in the cervical region, indicates the use of a shroud. Note that Feature 29 is one of the only two graves excavated in this cemetery (cf. also Feature 33) whose heads were oriented to the east, rather than to the west.

Also note proximity of Features 27, 28 and 29 (only  $\pm$  .3' separates Features 28 and 29).

\*

In his preliminary analysis, Dr. Angel identified this burial to be a possible fetus of indeterminate sex. (See Appendix 2).

LEGEND

— COFFIN OUTLINE

- - - GRAVE PIT OUTLINE

⌵ NAILS

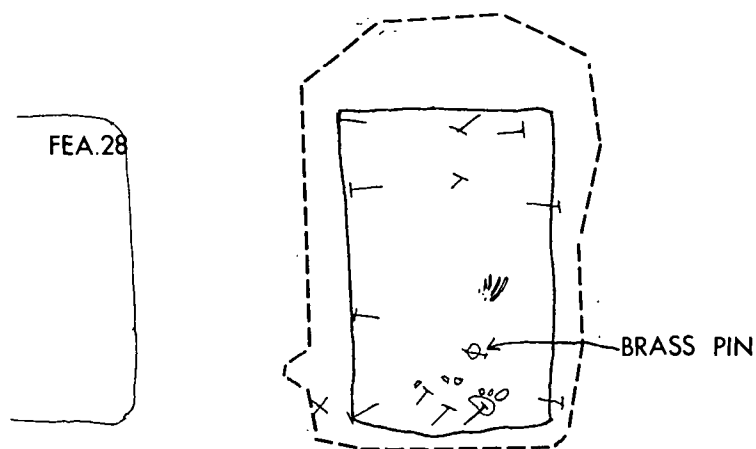
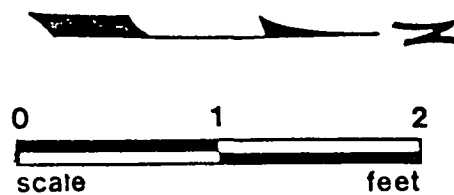


FIGURE II-33

CATOCTIN FURNACE

CHECK 6 FEATURE 29



PLATE II-32 FEATURE 29



PLATE II-33 FEATURE 29

Feature No. 30: North 50-55/East 80-90

Gravestone markers: none

First appearance of grave : Feature 30 was found after gradeall removal of the top  $\pm$  3.5' of soil.

First appearance of coffin : 4.69' below surface

Dimensions of coffin : 3.4' east-west x 1.2' north-south

Dimensions of burial : indeterminate

Dimensions of grave : 4.1' east-west x 1.6' north-south

Depth of top of cranium : indeterminate

Depth of highest point : 4.69' below surface (located in east end of grave)

Depth of pelvis : indeterminate

Depth of lowest point : 4.79' below surface (located in west end of grave)

Age, sex and condition : This was a child-size grave which contained no surviving traces of bone. There was extensive root activity.

Artifacts: 23 nails, hand-worught, rose-headed (untreated)  
1 seed sample

Date Range: 1790's

Discussion

Although Feature 30 was discovered after gradall removal of the topsoil in this area, the feature was deep enough (top of coffin more than 1' below depth reached by gradall ) that any bones in this grave should have been left in reasonable condition. That no bones were found must be attributed to other causes, such as poor soil conditions for preservation (cf. Feature 25, also a grave with virtually no surviving bone). The presence of the root activity in the Feature 30 grave area must also be regarded as a factor in explaining the absence of surviving bone in this feature.

A single seed, probably a cherry stone, was found above the eastern end of the coffin about .1' above coffin level. It has been interpreted as representing a random inclusion in the grave-fill and of no significant association with the grave itself.

The coffin was of straight-sided pinch-toe shape; there was no evidence of clothing or shroud.

Note proximity of Features 30 and 22 (only  $\pm$  .8' between them).

LEGEND

- COFFIN OUTLINE  
--- GRAVE PIT OUTLINE  
T T NAILS

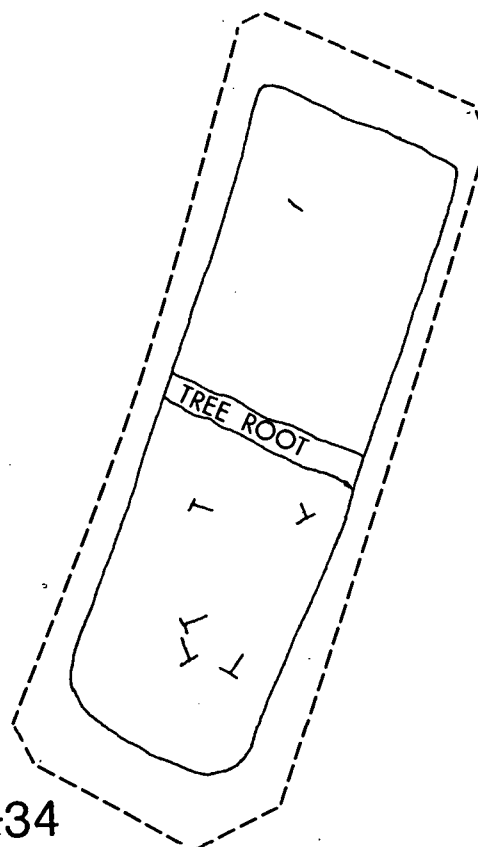
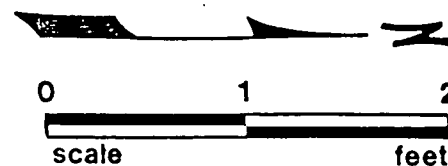


FIGURE II-34

CATOCTIN FURNACE

CHECK 6 FEATURE 30





PLATE II-34      FEATURE 30



Feature No. 31: North 40-45/East 85-90

Gravestone markers: none

First appearance of grave : Feature 31 was a grave discovered after removal of the top  $\pm$  of soil.

First appearance of coffin : indeterminate

Dimensions of coffin : indeterminate

Dimensions of burial : indeterminate

Dimensions of grave : 2.0' east-west x .75' north-south

Depth of top of cranium : indeterminate

Depth of highest point : indeterminate

Depth of top of pelvis : indeterminate

Depth of lowest point : 3.29' below surface

Age, sex and condition : The size of the grave pit indicates that this was the burial of an infant. The machinery had removed all but the bottom  $\pm$  .1' of the grave pit. No bone and no artifacts remained.

Artifacts: none

Date Range: indeterminate

Discussion

As already indicated, the gradall excavations had removed all but the bottom .1' of the grave pit of Feature 31, and only a soil stain remained, all bone and artifacts presumably having been removed by the machinery. Coffin shape (presuming a coffin was present) was indeterminate. There was also no evidence of clothing or shroud.

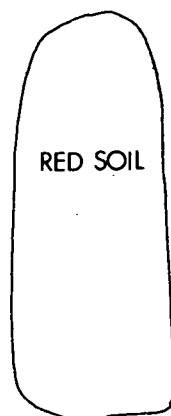
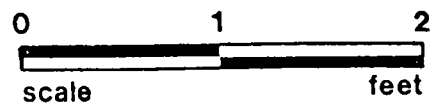
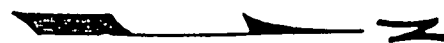


FIGURE II-35 CATOCTIN FURNACE

CHECK 6 FEATURE 31

Feature No. 32: North 65-70/East 80-90

Gravestone markers: none

First appearance of grave : Feature 32 was a grave discovered after gradall removal of the top  $\pm$  3' of soil.

First appearance of coffin : 3.73' below surface

Dimensions of coffin : indeterminate

Dimensions of burial : 6.2' east-west x 1.6' north-south

Dimensions of grave : 7.2' east-west x 2.4' north-south

Depth of top of cranium : 4.23' below surface

Depth of top of pelvis : 4.58' below surface

Depth of lowest point : 4.68' below surface (located in pedal area)

Age, sex and condition : This burial was disturbed both by tree roots and by what appeared to be rodent burrows. The individual was adult, possibly approaching elderly: it had worn teeth and arthritic lipping on the lumbar vertebrae. It was probably male. Missing were most of the left humerus and femur, the left tibia, left ulna, most ribs, most hand and foot bones and both patellae. Remaining bones were in fair condition. Distal right tibia had been disturbed. \*

Artifacts: 16 nails, hand-wrought, rose-headed (untreated)  
1 nail, hand-wrought, no head (untreated)  
1 bag of rodent skeletal remains  
3 soil samples (1 cranial, 1 thoracic, 1 pelvic)

Date Range: 1790's

#### Discussion

The coffin shape of Feature 32 could not be determined and there was no evidence of clothing or shroud. This burial had extensive soil stains of root and/or rodent burrow running into it, particularly in the eastern half. Rodent ribs and vertabrae were found in the area of the right foot and the long bones were disturbed. In addition, the grave outline was indistinct at the eastern end of the feature and no nails from that end of the coffin were found. Given these facts, it appears that this was the grave disturbed by Mr. Renner while pole-cat hunting some 40 years ago. During that incident as he has described it, he pursued a pole-cat into its burrow among some tree-roots, disinterred a human tibia, threw it back in cross-wise to the grave, and then back-filled the hole. Everything seen in this grave is consistent with that account.

\* In his preliminary analysis, Dr. Angel identifies this skeleton as male, 60-70 years of age. (See Appendix 2).

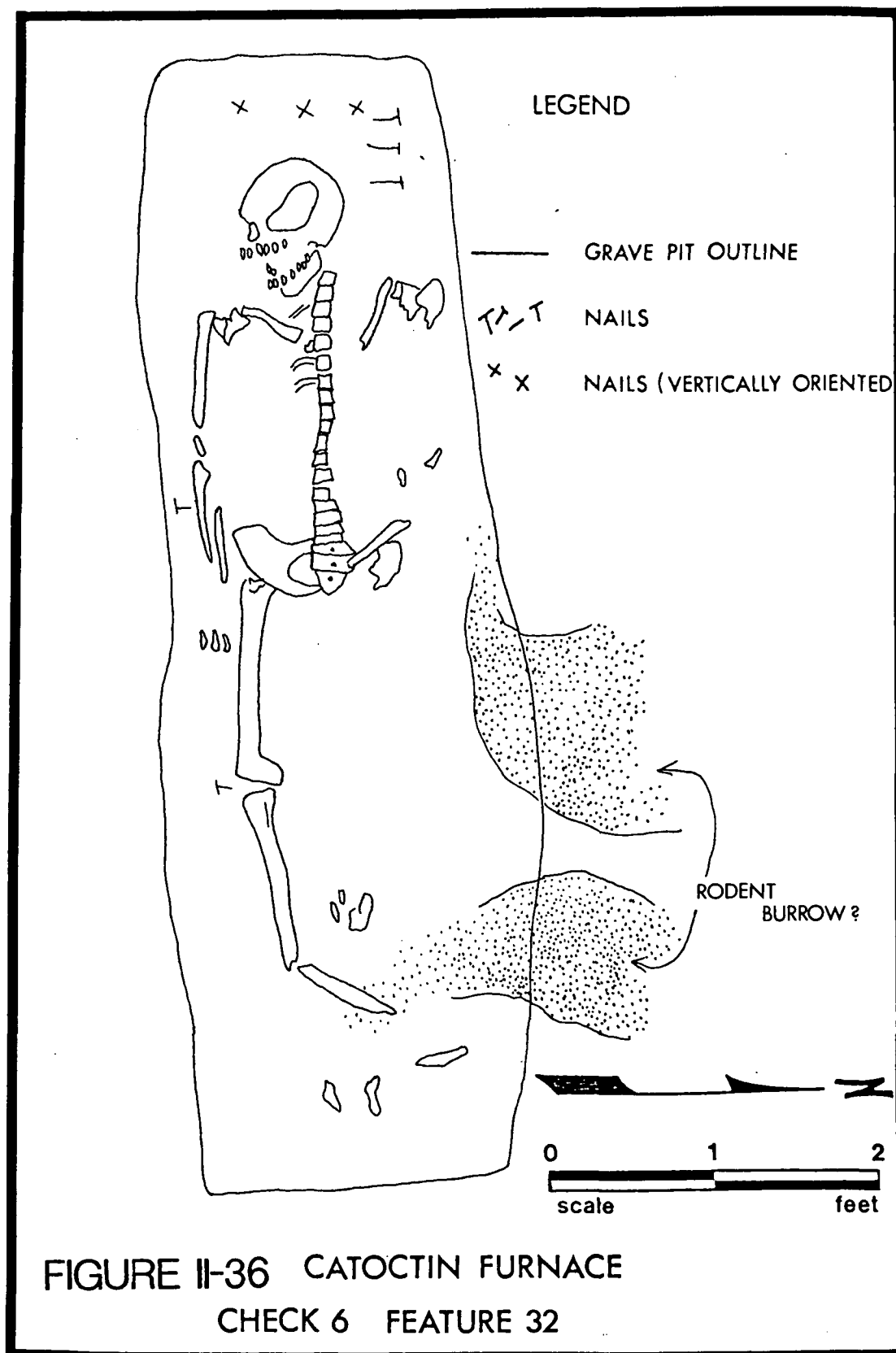




PLATE II-35 FEATURE 32



PLATE II-36 FEATURE 32

Feature No. 33: North 70-80/East 120-130

Gravestone markers: none

First appearance of grave: Feature 33 was discovered after gradall removal of the top  $\pm$  2.5' of soil.

First appearance of coffin : 4.37' below surface

Dimensions of coffin : 6.0' east-west x 1.8' north-south

Dimensions of burial : 5.4' east-west x 1.7' north-south

Dimensions of grave : 6.0' east-west x 2.2' north-south

Depth of top of cranium : 4.67' below surface

Depth of top of pelvis : 4.92' below surface

Depth of lowest point : 5.22' below surface (located: proximal right humerus)

Age, sex and condition : This was a middle-aged individual, sex uncertain (possibly male). It was in good to excellent state of preservation, with all bones present except the sternum. Mandibular teeth were very worn and there was some arthritic lipping on vertebrae and proximal tibiae. \*

Artifacts: 16 nails, hand-wrought, rose-headed (untreated)  
2 nails, hand-wrought, T-headed (untreated)  
1 nail, hand-wrought, no head (untreated)  
3 soil samples (1 cranial, 1 thoracic, 1 pelvic)

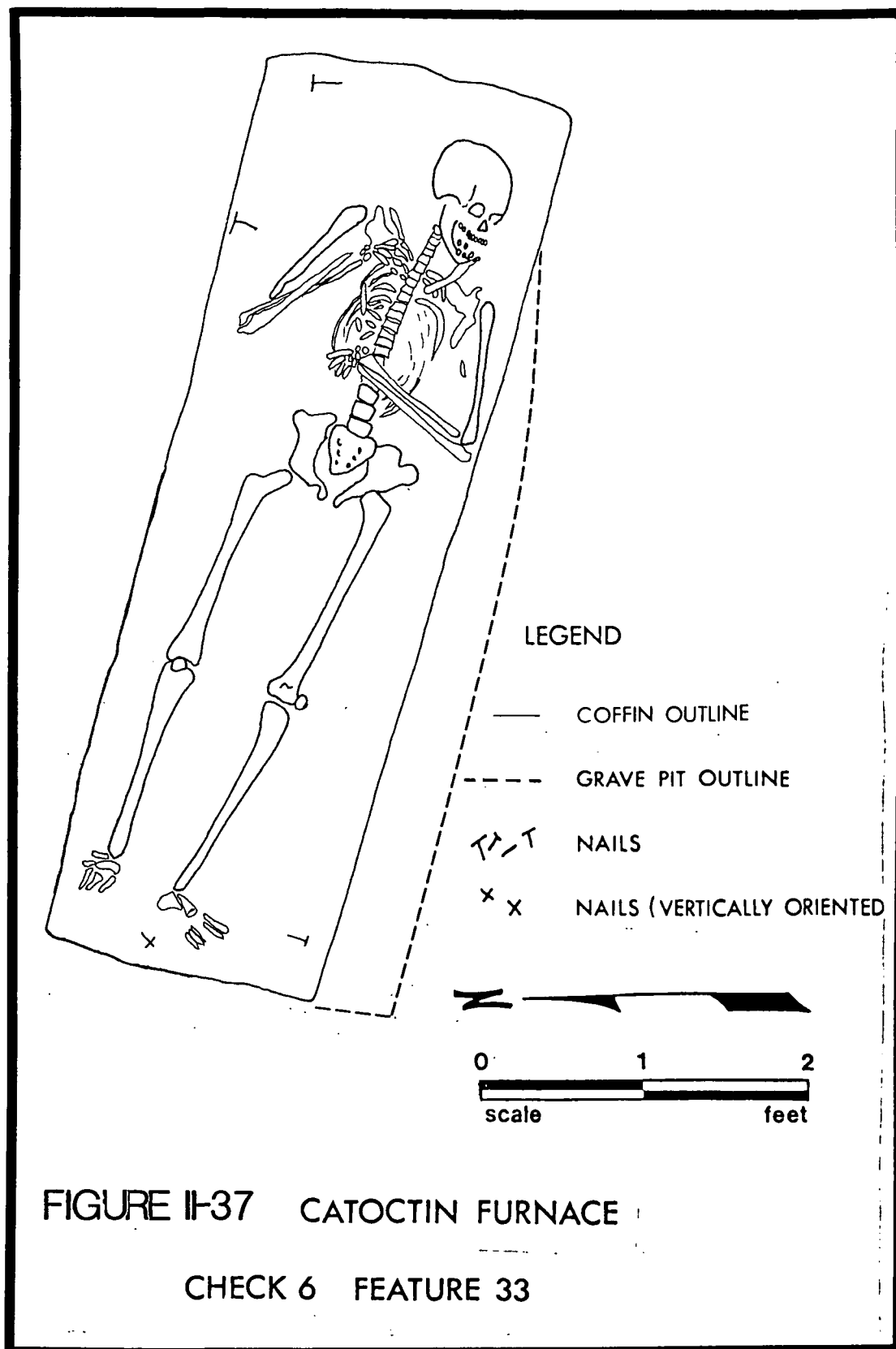
Date Range: 1790's

Discussion

This feature was atypical in several ways. First of all, it is one of the only two graves excavated at this site for which the head was to the east, rather than the west (cf. Feature 29), and of these two, the only adult. Second, this individual was buried in a rectangular, not a pinch-toe coffin and was one of the only two adult burials so found (cf. Feature 23). Lastly, the position of the hands does not follow the usual pattern of being folded over the abdomen. However the hands could have been displaced as a result of shifting occurring during interment, and may well have been originally folded over the abdomen. Note that the tooth wear on the mandibular incisors suggested habitual pipe-smoking. There was no evidence of clothing or shroud.

\*

In his preliminary analysis, Dr. Angel identified this skeleton as probably a male, of 21 to 27 years of age. (See Appendix 2).





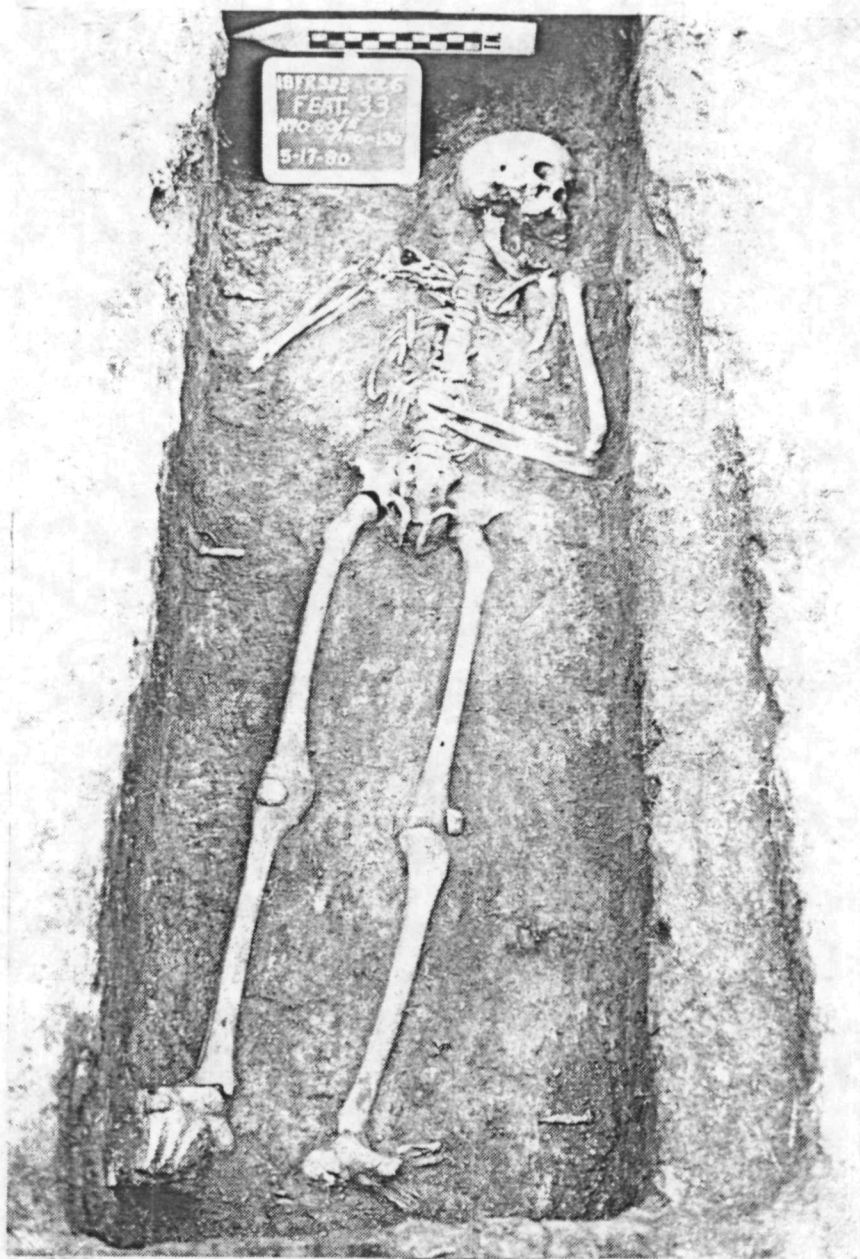


PLATE II-37    FEATURE 33



PLATE II-38 FEATURE 33

Feature No. 34: North-40-45/East 140-150

Gravestone markers: none

First appearance of grave : Features 34 and 35 were discovered after gradeall removal of the top  $\pm$  2' of soil.

First appearance of coffin : 3.50' below surface

Dimensions of coffin : indeterminate east-west x .6' north-south

Dimensions of burial : indeterminate

Dimensions of grave : 6.5' east-west x 2.2' north-south

Depth of top of cranium : 3.50' below surface

Depth of top of pelvis : indeterminate

Depth of lowest point : 3.90' below surface (located: east end of vertebral column)

Age, sex and condition : This individual was an infant,  $\pm$  9 months to one year of age, sex indeterminate. The skeleton was in poor to fair condition. The burial was badly disturbed and the cranium thrust upward, apparently by rodent activity. The only bones surviving were cranial fragments, teeth, lower limb long bones and some vertebral parts.\*

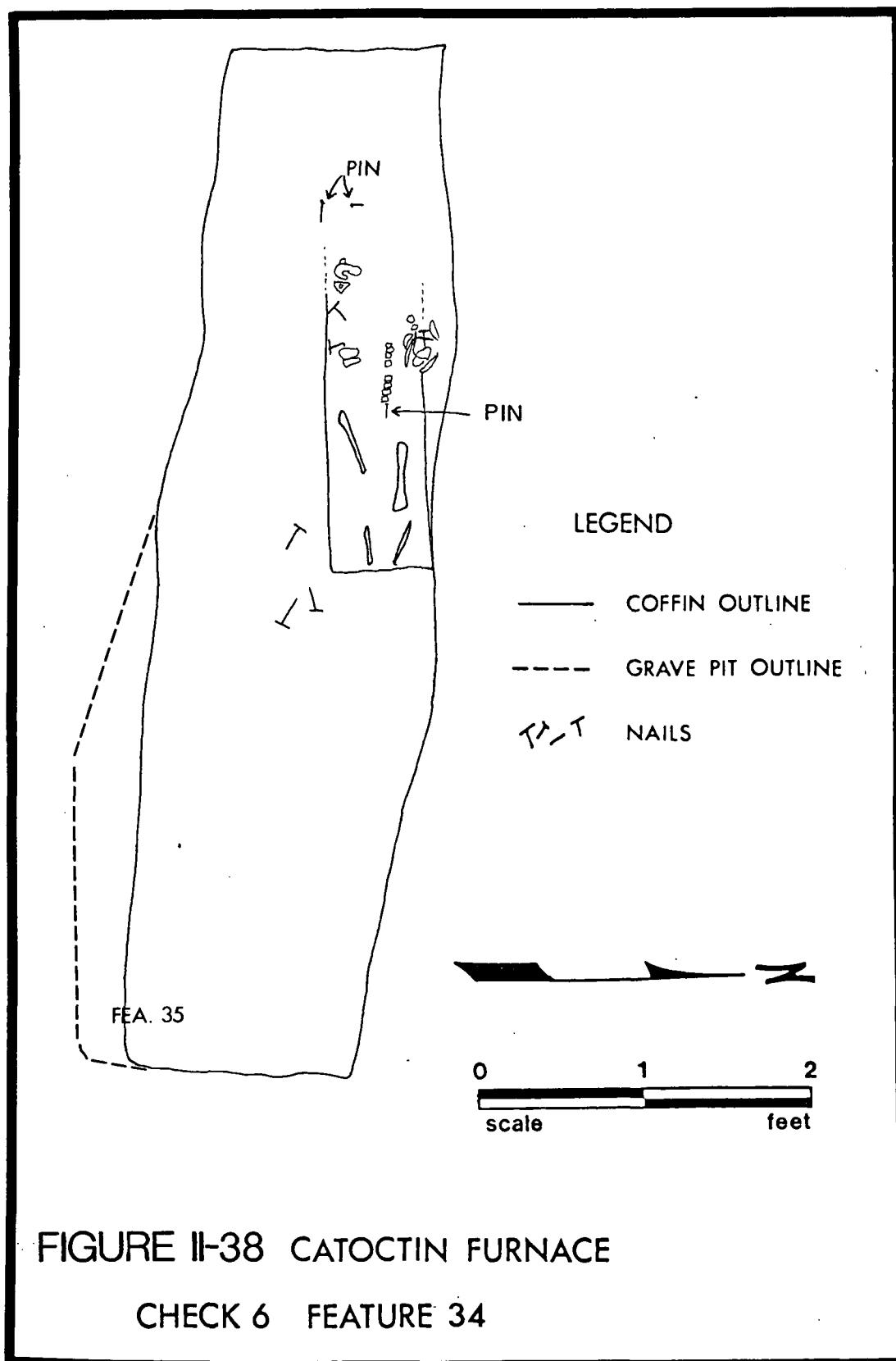
Artifacts: 2 nails, hand-wrought, rose-headed (untreated)  
9 nails, machine-cut, machine-headed, L-headed (untreated)  
4 cuprous pins  
1 sample of wood from north edge of coffin  
2 soil samples (1 cranial, 1 postcranial)

Date Range: 1820+

Discussion

Feature 34 was an infant buried in the same grave as Feature 35, an adult. The coffin of Feature 34, apparently of straight-sided rectangular shape, rested directly on top of the coffin of Feature 35. The two coffins appear to have been interred at the same time. However the dates of manufacture of the nails used in these two coffins date Feature 34 at least 20 years later than Feature 35. It must be concluded that old nails were still in use (or were being reused) decades after they were no longer being manufactured, and that in fact both burials date to the 1820+ period. These two features represent the only instance of multiple burials in one grave found during excavations at this site. The presence of the pins suggests that the infant in Feature 34 was buried in a shroud.

\* In his preliminary analysis, Dr. Angel identified this skeleton as a one to two year old child of indeterminate sex. (See Appendix 2).



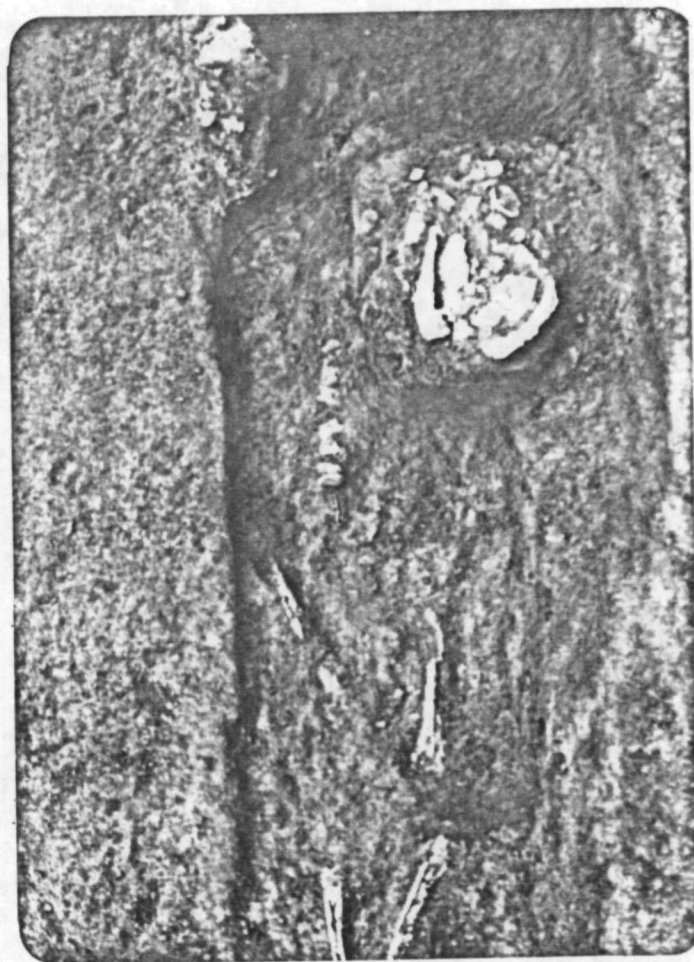


PLATE II-39 FEATURE 34



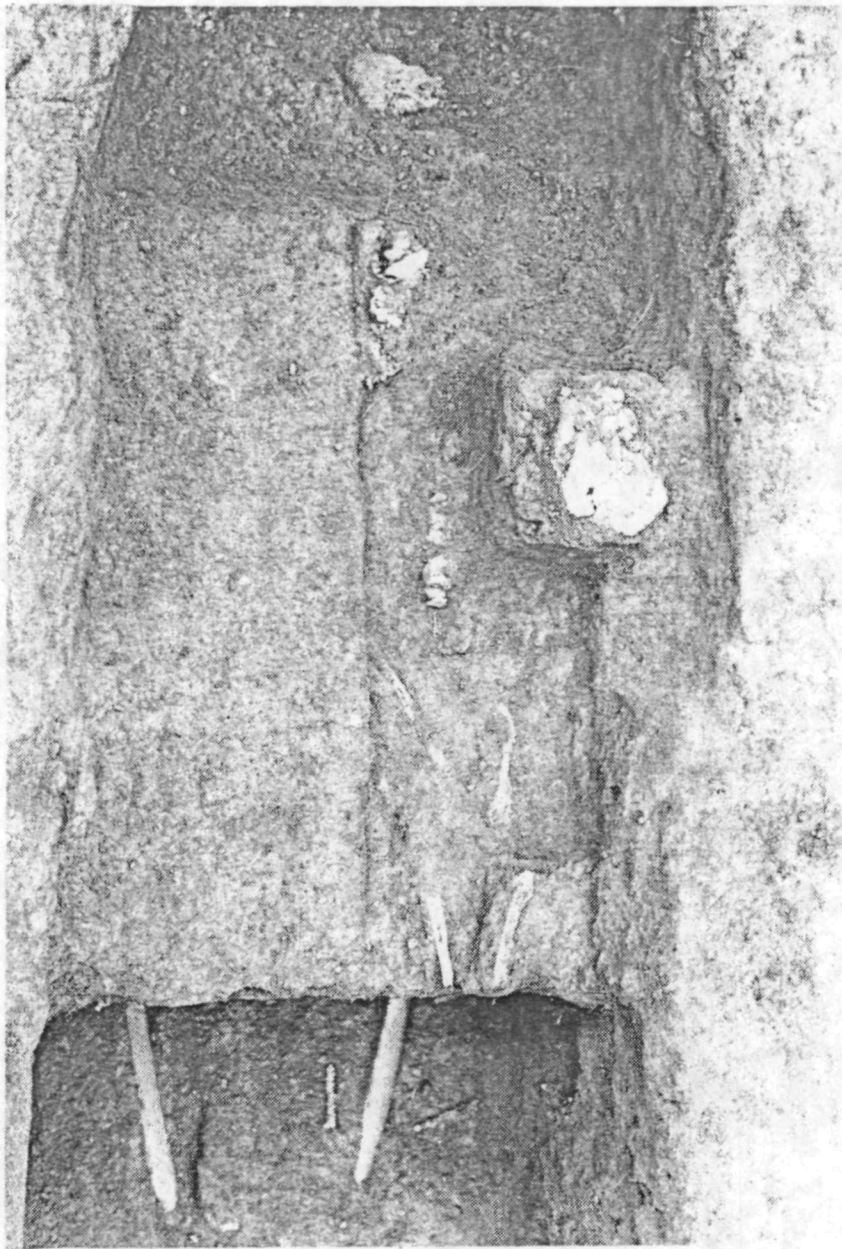


PLATE II-40 FEATURE 34 & 35



PLATE II-41 FEATURE 34



PLATE II-42 FEATURE 34



Feature No. 35: North 40-45/East 140-150

Gravestone markers: none

First appearance of grave : Features 34 and 35 were discovered after gradall removal of the top  $\pm$  2' of soil.

First appearance of coffin : 3.90' below surface

Dimensions of coffin : 6.0' east-west x 1.8' north-south

Dimensions of burial : 5.6' east-west x 1.5' north-south

Dimensions of grave : 6.5' east-west x 2.2' north-south

Depth of top of cranium : 4.4' below surface

Depth of top of pelvis : 4.4' below surface

Depth of lowest point : 4.8' below surface (located: sacrum)

Age, sex and condition : This was an adult female whose bones were in an excellent state of preservation. All bones were present except the left patella, which was exposed in the initial stages of excavation and apparently was carried off by rodents during the night. This was the only skeleton excavated at this site for which the hyoid bones were preserved. The individual had dental problems and also a deformity of the left femur head and acetabulum. \*

Artifacts: 8 nails, hand-wrought, rose-headed (untreated)  
9 nails, hand-wrought, T-headed (untreated)  
7 nails, hand-wrought, L-headed (untreated)  
5 nails, hand-wrought, no heads (untreated)  
18 nail fragments, hand-wrought (untreated)  
1 ferrous bar with wood, from pedal area  
1 ferrous bar from pelvic area  
1 ferrous right-angled bar from area of left patella  
1 ferrous bar from cranial area  
3 soil samples (1 cranial, 1 thoracic, 1 pelvic)

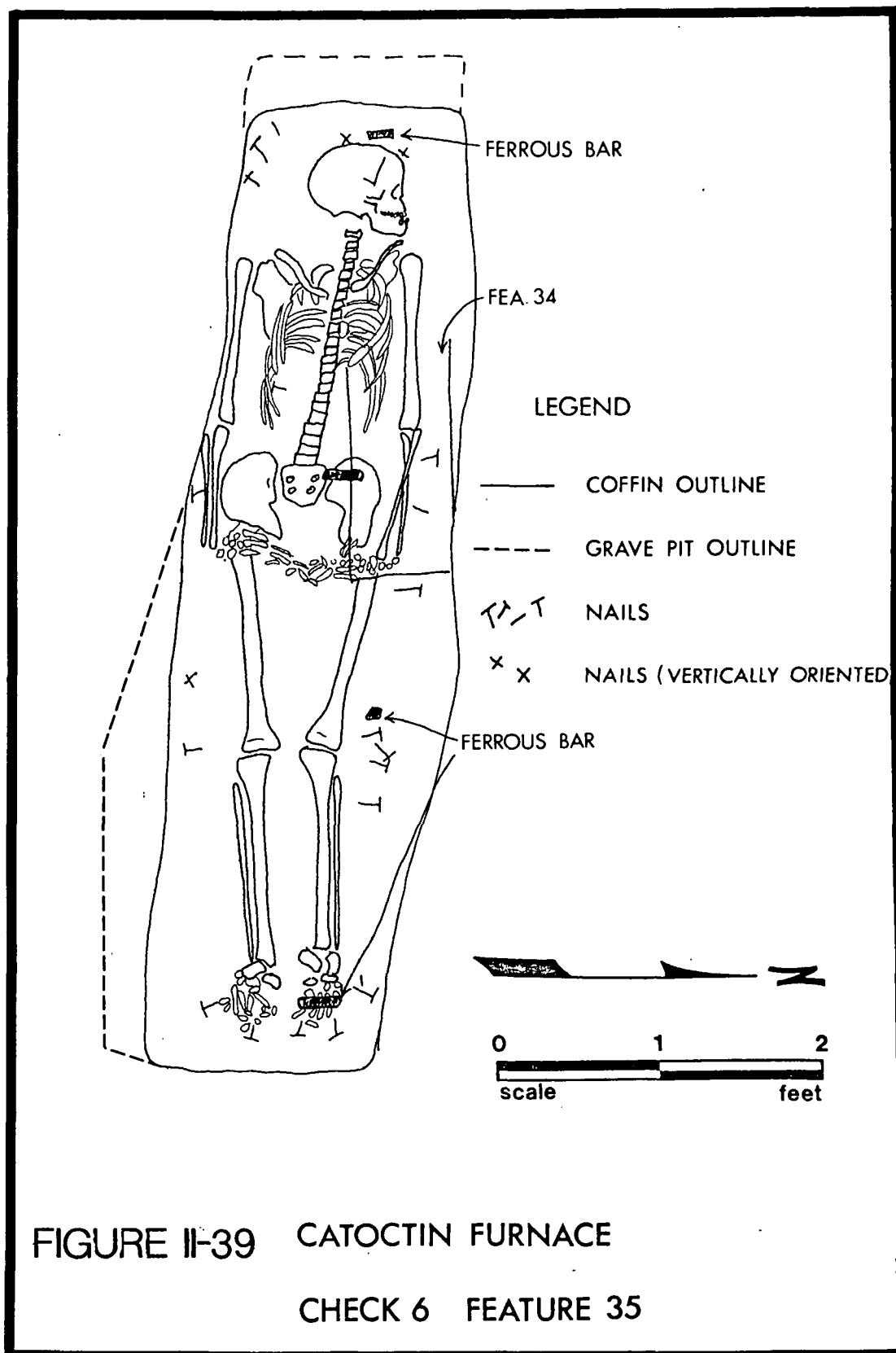
Date Range: 1790's

Discussion

Feature 35, an adult, was in the same grave as Feature 34, an infant, with the coffin of Feature 34 resting directly on top of the coffin of Feature 35. The coffin of Feature 35 was apparently of shouldered, pinch-toe shape. There was no evidence of clothing or shroud. These two features represent the only instance of multiple burials in one grave found during excavations at this site. (For discussion of the dating of these two burials, cf. Feature 34.) Note

the ferrous bars found in Feature 35, apparently reinforcing brackets used in construction of the coffin. This was the only coffin found at this site that had any hardware other than coffin nails.

- \* Dr. Angel's preliminary analysis identifies this skeleton as a female, of 45-57 years of age. (See Appendix 2).



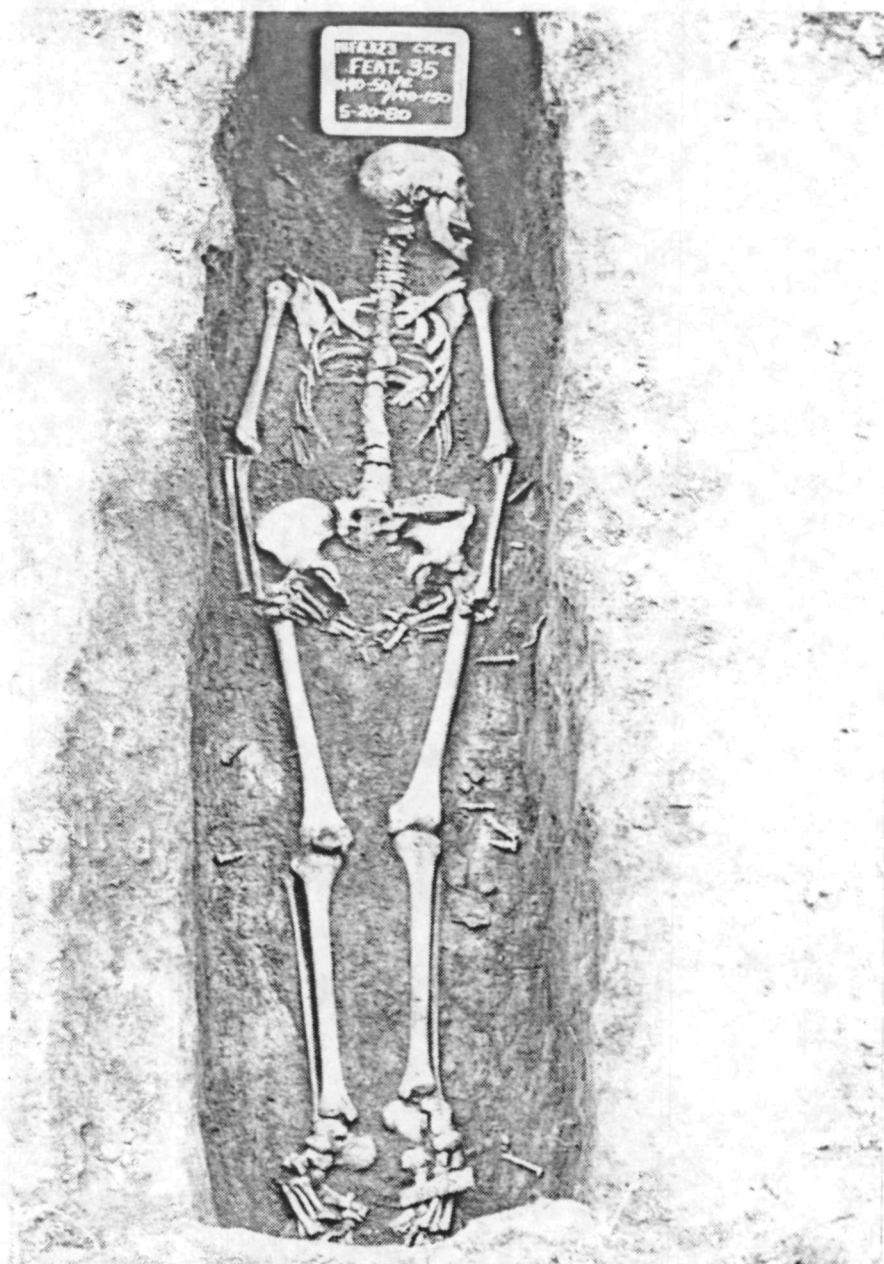


PLATE II-43      FEATURE 35

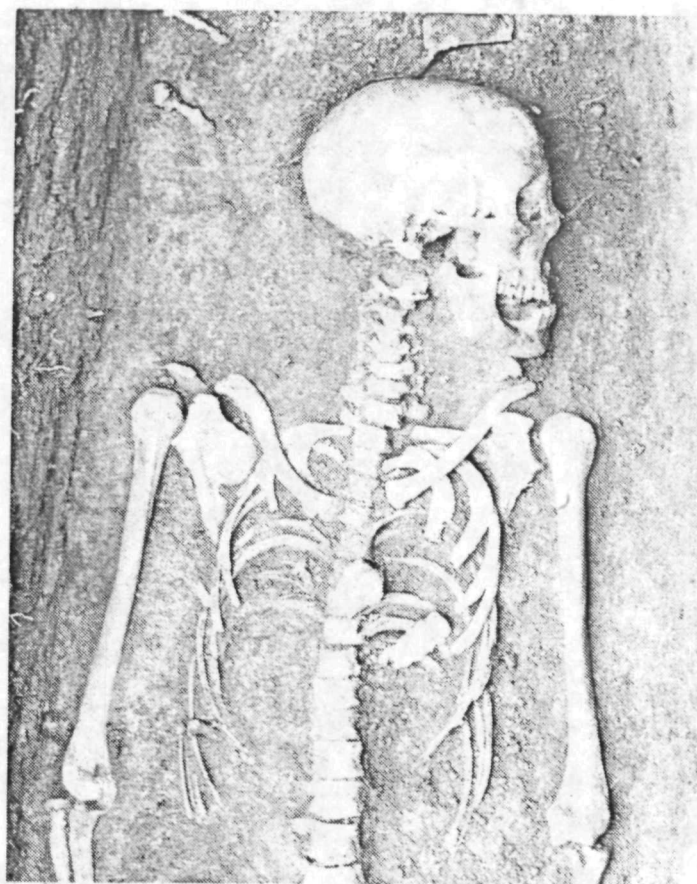


PLATE II-44 FEATURE 35

IRON BAR



PLATE II-45    FEATURE 35

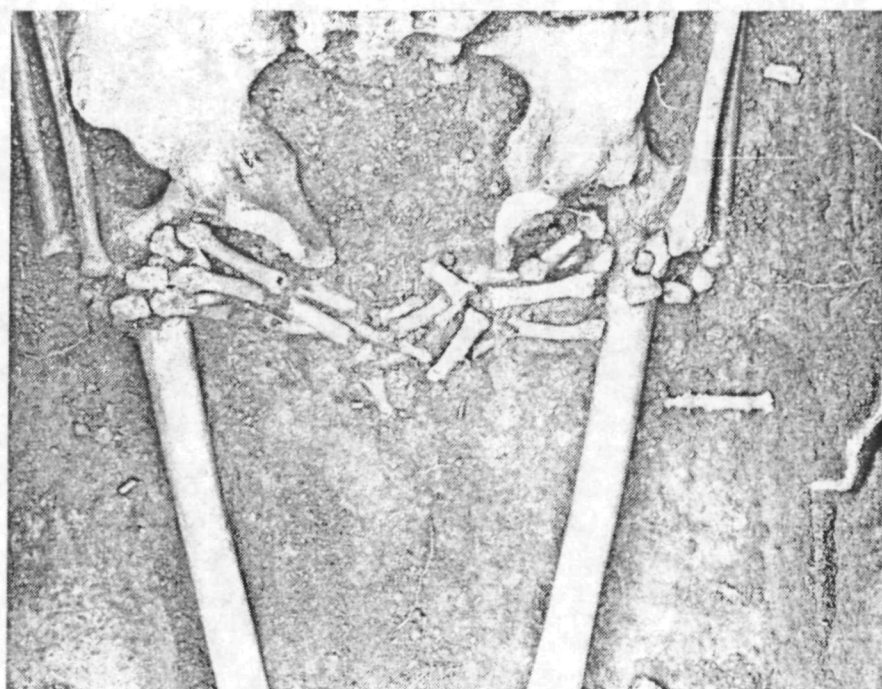


PLATE II-46 FEATURE 35



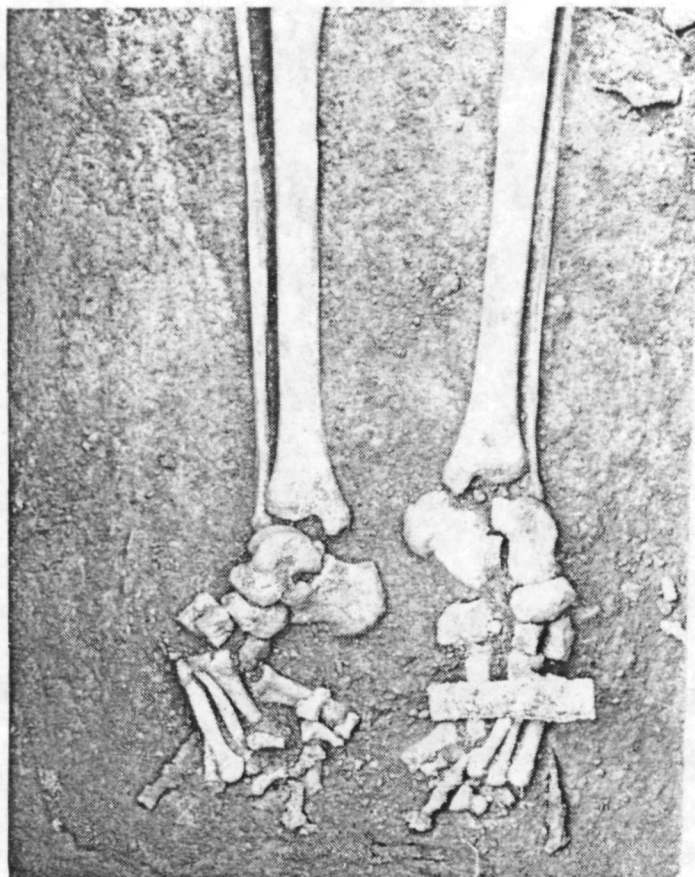
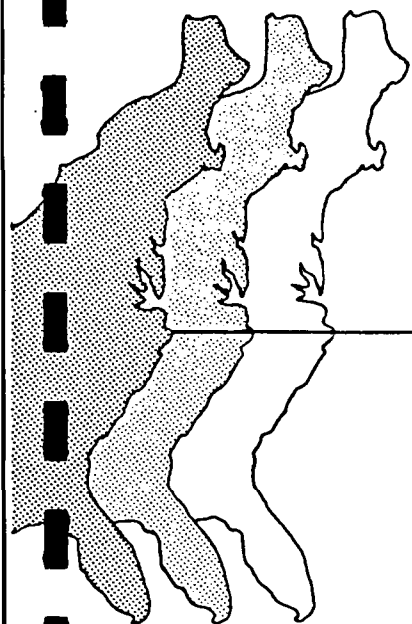


PLATE II-47 FEATURE 35





interpretation

## INTERPRETATION

The site produced a limited range of artifactual materials (see Appendix 9): some prehistoric lithic flakes in the topsoil and grave fill, some surface finds of a domestic and/or agricultural nature, the skeletons themselves, coffin nails, coffin wood fragments, buttons, shroud pins, a few botanical samples and some textile fiber samples.

The prehistoric lithic remains were all found on the surface, in the upper levels of the topsoil, or within the soil used to backfill graves. As there was a Late Archaic campsite identified and investigated within 50 yards to the south of the cemetery (18FR322, see MAAR report, May 1980), the presence of this material is not surprising. However, the small quantity of such material does not warrant further discussion here beyond noting its presence.

The surface artifacts were also few in number. They consisted of animal bone fragments (mostly of domesticates with a few fragments of common local wild fauna), glass fragments, ceramics fragments, and metal objects, such as horseshoes, a small animal spring-type trap, and fragments of wire. All surface finds were of domestic or agricultural nature and date from the late nineteenth to mid-twentieth century.

### Skeletal Remains

The most significant class of objects found at this site was, clearly, the skeletal material. Field identifications of age and sex were made for each individual and it is this information that appears on the burial data sheets. Analysis of the skeletal material is still being conducted by physical anthropologist Dr. J. Lawrence Angel and his staff at the Smithsonian Institution in Washington, D.C. His examination of the material suggests age and sex attributions that may differ somewhat from the field identifications (see Appendix 2). Dr. Angel's preliminary remarks on the skeletons also note the following: the individuals with good enough preservation to assess racial classification (N=16) all appear to have been black, and since he has not found any visible admixture of white, it is possible that the skeletons were of first or second generation immigrants. Stature was about average (mean male stature = 171.62 cm., N = 7; mean female stature = 156.36 cm., N = 8). There was an apparent wide range in the degree of muscularity.

Average age at death for males was 36.7 years and for females was 33.1 years, expectable figures for this time period. The ratio of infants:children:adults was 2:6:10, also within expectable limits. There appears to have been a variety of pathological symptoms, including fracture, stress injury, vertebral fusion, arthritic breakdown of neck vertebrae, rickets, poor teeth, infection, and a possible parietal trephination. Premature fusion of cranial sutures is common.

Discussion of the significance of these observations will have to wait on Dr. Angel's conclusions and publication of the results of his analysis.

#### Coffin Hardware

Of the artifacts found in association with the skeletons, the only class of object that provided any criteria for dating were the coffin nails. On the basis of the changes in nail manufacture technology (see Appendix 3), the site was dated at  $\pm 1790-1840$ . However, there is some reason to question the reliability of nail technological changes as a dating device at this site. Specifically, Features 34 and 35 were two individuals buried in a common grave. Based on the dating criteria employed, Feature 34 was dated to 1820+ while Feature 35 was dated at least 20 years earlier. However, the two coffins appeared to have been interred at the same time. It may be concluded that old nails were still in use (or were being re-used) in this context decades after they were no longer in manufacture, and that in fact the two burials date to the 1820+ period. It is also possible that 20 years or more did separate these two interments. Nevertheless, the unsatisfactory nature of nail technology criteria as a dating device is clear. These criteria were employed at this site solely because no better criteria were available.

One nail was selected at random for metallographic analysis (from Feature 15. See Appendix 4). It was identified as being composed of wrought iron with a mild steel core. Such a nail would have been less likely to bend than one made completely of soft wrought iron. The estimated final heating temperature was circa 700-900°C. The nail head was formed by "upsetting", that is, striking the cooling piece of metal end-on, parallel to its long axis, to spread the end into a head.

Such a nail could have been made in the late eighteenth century at Catoctin or anywhere else. Until other, comparative data are available, it is not possible to identify the place of manufacture of this nail. It is also impossible without comparative data to state whether the mild steel core was a fortuitous circumstance or the result of deliberate incorporation of known metallurgic properties into its manufacture.

The only other coffin hardware items found at this site were in association with Feature 35 (see Plates II-45 and II-47). These items were flat strips of ferrous metal, apparently used as reinforcing brackets in the construction of this one coffin.

#### Coffin Wood

The coffins were of simple slat construction, as can be seen in the preserved wood remains of Feature 10 (see Plates II-13, 14a and 14b). Samples of coffin wood from two burials, Features 10 and 6, have been identified as chestnut (Castanea dentata) and white oak (Quercus sp.) respectively (see Appendix 5).

## Buttons, Pins, and Textile Fragments

The "grave goods" consisted of 22 buttons, suggesting that at least four individuals were buried in some type of clothing, and the remains of 27 straight pins, suggesting that at least 10 other individuals were buried in shrouds. There was no evidence of jewelry or any other clothing hardware such as buckles or cobblers' nails, which implies the absence of shoes.

Of the buttons that were found, 11 were brass and two white metal, in varying sizes, all plain flat front with a ring-eye back, resembling Noel Hume's types 7, 8, and 9 (Noel Hume 1970:91). Seven were bone, five-holed, about 1.6 cm in diameter, somewhat similar to Noel Hume's types 19 and 20 (Noel Hume 1970:91). Two were shell, four-holed, 1.1 cm in diameter (see Plate II-18), resembling Noel Hume's type 22 (Noel Hume 1970:91). These buttons were of little use in refining the date ranges of their respective burials, since as Noel Hume pointed out (1970:92) they have a functional date range which has not been refined to narrower limits than early 18th to mid-19th century.

The shroud pins were of cuprous metal, probably brass (see Plate II-42). Fiber samples found in conjunction with one of the buttons (cranial area, Feature 6) and in conjunction with one of the pins (cranial area, Feature 3) were both identified as woven textile remains, and were presumed to be clothing and shroud fragments, respectively. Electron microscope examination of these samples provided inconclusive results. They were then subjected to spectrometer analysis and were both identified as animal protein fiber, that is, wool.

It should be noted that of the 35 graves excavated, 21 contained no surviving evidence for either clothing or shroud. The only instances of preservation of textile fibers were in association with metal artifacts. Clothing or other material not so associated could have decomposed without leaving a recognizable trace.

## Botanical Remains

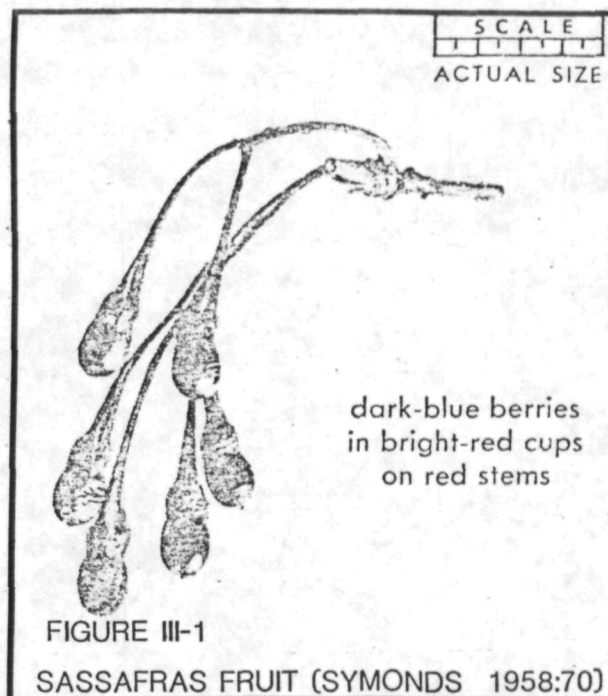
Botanical remains in the form of seeds were found in seven graves. In one (Feature 16) the seeds found were in association with a rodent disturbance, while in three others (Features 9, 26, and 30) the seeds were found within the soil used to fill the burial pit after interment of the coffin, and were therefore regarded as accidental inclusions in the fill.

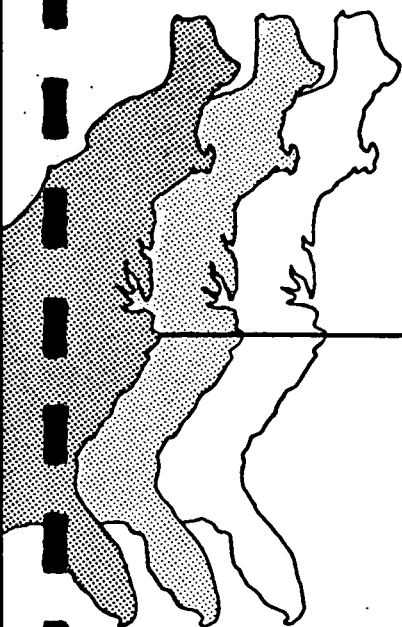
However, three features contained seed remains in contexts that suggested deliberate deposition. These seed samples, as well as three body cavity soil samples randomly selected (from Features 8, 10, and 13) were sent for analysis. The body cavity soil samples were found to contain no botanical materials. The seed samples were identified as follows:

In Feature 21, an infant grave, clusters of seeds which formed a corona around the cranial area (and had been labeled in the field drawings

as flower seeds) were formally identified as raspberry or blackberry (Rosaceae Rubus sp.). In Features 15 and 22, adult graves, seeds found lying on top of the coffin surface were identified as sassafras (Laureaceae Sassafras albidum). The Feature 22 sample also contained one Rubus seed and a fragment of a peach pit (Amygdalus persica), which may be dismissed as random inclusions in the fill.

The berry and sassafras seeds, however, appear in contexts that suggested funeral botanical offerings. The analyst of the botanical samples had been led to expect floral grave offerings. Upon finding that the seeds were from species other than those which might be associated with a floral offering, she attributed all of them as accidental inclusions in the grave fill. (See Appendix 7). The berry and sassafras seeds, however, had been found in contexts that clearly suggested deliberate placement. It should be noted that sassafras fruit and fall foliage are apparently very colorful, and therefore ornamental (see Figure II-1), while the blackberry/raspberry seeds found around the cranium of the infant in Feature 21 raise the intriguing symbolic image of a crown of thorns. Nevertheless, these are not plants generally associated with funeral floral arrangements and their significance is not clear at the present time.





## summary

## SUMMARY

Excavations by Mid-Atlantic Archaeological Research, Inc., in 1979 and 1980 at the Catoctin cemetery site removed all graves lying within the ROW of the proposed dualization of U.S. Route 15. The 35 graves excavated represent an estimated one-third of the total number originally interred at that site.

A hypothetical reconstruction of land use at the site, developed from the field work and other available sources, is as follows.

Prehistoric peoples passed across the site and probably encamped in an immediately adjacent area. However, evidence for their presence is scanty. The area was used as a cemetery from some point in time circa 1790. There is some evidence that trees were felled and stumps burned to clear the land before that time. Access to the cemetery was by a dirt road that bordered it on the northwest and west, and possibly also by a dirt road or lane that cut through the cemetery north to south.

Individuals interred at this site were black, probably with no admixture of white and therefore probably recent arrivals from Africa. From the lack of material goods (e.g. no engraved or carved tombstones, no coffin handles, plaques or other coffin hardware, no jewelry, etc.), it is inferred that the people were of low socio-economic status. They were interred with no apparent separation by age or by sex. There appears to be some evidence of family groupings because some graves were clustered close together (e.g. Features 9, 15, 16, 17, 19, and 20) while elsewhere in the plot substantial empty spaces were left (see Figure II-3). Furthermore, some family physical resemblances were noted, as in the case of Features 15, 18, and 22, located near each other, all of which were recorded in the field as having noteworthy robustness of the lower limb bones. Surely the placement of Features 34 and 35 in one grave pit suggests a family relationship of some kind.

There is some suggestion that toward the end of the period of use of this burial ground, some of the spatial organization of interment broke down. For example (see Figures II-3 and II-4), Features 17, 19, 20, 27, 28, and 29 are all graves dating from the last decades of the interpreted date range (except for Feature 27, for which the date range is unknown), and they seem to form a row which is not in conformity to the ten-foot spacing of the other rows of graves. In addition, Feature 14, another grave dating from the latter part of the period of the cemetery's use, can be seen to be oriented on an axis slightly diagonal to that of the other graves.

The relationship of the cemetery to the quarry and the washer pond is not altogether clear, although there is some evidence that the quarry and pond were not utilized until the 1860's (personal communication, Mary Rae Cantwell, Catoctin Historical Society). If this is true, then industrial or economic activity across the site (to and from the quarry and pond) did not begin until a generation or more had elapsed

since the last regular use of this land for a cemetery. The report by Mr. Renner of a late nineteenth century interment of a smallpox victim in an iron coffin at this site could not be verified, although this burial may lie in the unexcavated portion of the cemetery.

By the early twentieth century the land was under cultivation. The southern half of the cemetery site area was in use as part of a cornfield (Mr. Renner, personal communication). The black walnut trees standing on site in 1979 and cut down in early 1980 were all 70-75 years old, placing the start of timber regrowth at about 1905-1910. Mr. Renner, who bought the property in 1938, kept a pig lot on part of this land but otherwise apparently made little active use of it.

Certain observations have been made about the identity and status of the occupants of this cemetery. It was possible to identify several aspects of the material culture surrounding these interments: graves marked with rough fieldstones, simple coffins of white oak and chestnut, construction with wrought or cut nails, interments in simple clothing or in shrouds. It was also possible to discern what may be termed a Christian pattern of burial (see Appendix 8): coffin burial, extended position with the hands folded over the mid-section, orientation with heads generally to the west, and perhaps some indication of family groupings within the cemetery.

The physical anthropological analysis suggests that these people were black (see Appendix 2) and possibly first or second generation Africans. The historic sources indicate that they were probably slaves who worked in some connection with the iron furnace complex (see Appendix 1 ). Since other sources have suggested that iron furnace workers were frequently imported directly from West Africa, while house slaves were unlikely to be new arrivals (see Appendix 8), it appears a likely possibility that these people were in fact iron workers.

However, the sorts of distinctive burial practices generally associated with the African heritage in black American cemeteries were absent here. There were no graveyard decorations, no heaps of broken crockery, bottles, white seashells, ornamental vases, architectural fragments, etc., reported for black cemeteries in nineteenth century South Carolina and elsewhere (Bolton 1891:214, Ingersoll 1892: 68-69, Showers 1898:298, Blassingame 1979:41,45), nor were there the carved grave markers reminiscent of African carved figures, as has been seen, for example, in Sunbury, Georgia (Blassingame 1979:45). There were also no skeletons buried with beads, necklaces, bracelets, finger rings, knives, tobacco pipes, etc., such as were found in a late eighteenth century slave cemetery in Barbados (Handler and Lange 1978, *passim*). Only the possible appearance at the Catoctin cemetery of fruit and seed funeral wreaths, as opposed to flowers, was unusual, and may raise the suggestion of some association with Afro-American folk supernatural beliefs (Cf. Mitchell, 1978, *passim*).

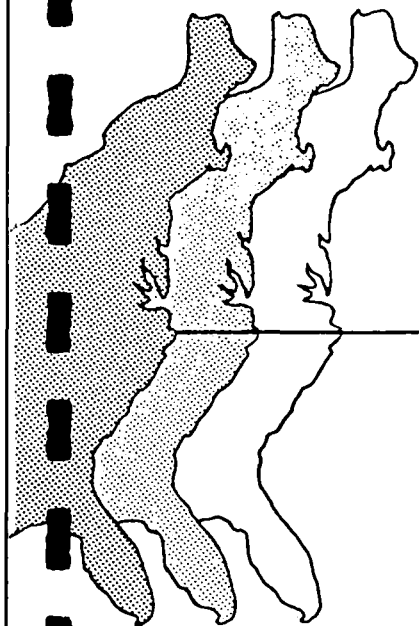
If, as Dr. Angel suggests, these were first or second generation slaves, it is significant that they appear to have been so thoroughly Christianized in their burial practices. Religion was often imposed by



a Christian master upon his slaves and he had full authority as to how they would be buried. His preference in this matter might range from full Christian rites with no folk customs (Cf. Handler and Lange 1978: 204, Yetman 1976:189), through some tolerance of folk practice (Yetman 1976:84, 92), to an insistence on a purely functional and efficient interment with a complete prohibition of any observance whatsoever (Yetman 1976:70). It is not necessary to assume that the people buried at this site were Christianized blacks, but merely to recognize that they lived in a Christian society in a system of extensive restriction and control. Every aspect of their life, including death, may have been governed by someone else's choices. The botanical offerings for which there is evidence may have been the only means of funeral-associated personal expression permitted them within an imposed belief system.

#### Recommendations

It is recommended that the exhumed skeletal material from this site remain at the Smithsonian Institution permanently for analysis and study. Since all human remains within the surveyed U.S. Route 15 ROW have been removed, it is recommended that no further excavations at this site are necessary at the present time. However, it is also recommended that a permanent marker be interred on the surviving portion of the cemetery to inform investigators of the distant future that skeletal material from this site was exhumed and was stored at the Smithsonian Institution. It is felt that an interpretive marker would not be of benefit to the site because it might bring adverse attention to the remaining interments.



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